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Observations on Aneurism. By D. L. ROGERS, M. D. Resident Surgeon of the New-York Hospital.

UNTIL of late an aneurism of the carotid has been looked upon with dismay, and considered as inevitably fatal. It was formerly considered as utterly impossible to secure this artery by ligature. This supposed impossibility originated from the idea, that, should so large a current of blood as that derived from the heart to the head, be intercepted by ligature, it would prove immediately fatal—but owing to the rapid improvements in anatomical knowledge since the close of the last century, these doubts have been dissipated, and it has been clearly proved, that one artery is sufficient to answer all the demands of nature. The innovation of Mr. Hunter, in passing a ligature upon the cardiac side of an aneurismal sac proving effectual in the obliteration of the artery, has led to new and important discoveries in this branch of natural science.

In the year 1805, Mr. A. Cooper made the first attempt to cure an aneurism of this artery, by securing it in a ligature; and although it proved fatal, yet, from the length of time

which the patient lived, the practicability of the operation was sufficiently established to warrant his second attempt, in 1808 ; which last operation equalled his most sanguine expectation, and fully proved its utility. This operation has since been performed so often, and with such unvaried success, that its possibility and usefulness is now fully demonstrated, and surgeons no longer hesitate to make the attempt, nor are they doubtful as to the result.

The connexion of the carotid artery with the veins and nerves of the neck—its direction and relative connexions with the muscles—its being a single and undivided trunk from its origin to its bifurcation at the angle of the lower jaw—the facility with which it is secured at some parts, owing to its being superficial ; and the difficulty and danger that must ever follow an attempt to secure it at other parts, will render an investigation of its pathology, at all times, interesting to surgeons. But to give a detail of the surgical anatomy of this artery, would be foreign from our design ; we shall therefore select such parts as tend more particularly to elucidate the subject, referring, as occasion may require, to such authors as have written expressly upon it.

For surgical purposes, the carotid artery may be divided into three parts. First, that part which extends from its origin to the intersection of the Omohyoides muscle. Second, that which extends from the Omohyoides muscle to the angle of the lower jaw—and thirdly, that part superior to the angle, and where the branches are given off.

These divisions should be well understood, as each part differs in its connexions with the veins, nerves, and muscles. The surgeon should also be intimately acquainted with the peculiarities of each of these divisions, for upon this knowledge will in a great measure depend his success as an operator, and the life of his patient.

Notwithstanding many valuable works have been written upon the anatomy of this artery, by men of the first stand-

ing in their profession; yet we humbly conceive, that something more may be done. We would, therefore, suggest the propriety of an additional operation to the present mode of securing this artery by ligature. I mean in those cases in which the present mode of securing it would be deemed impracticable.

Desault's proposition of passing a ligature upon the distal side of an aneurismal sac is known to every person conversant with the disease. Its origin, success, and rejection, is likewise familiar to every practitioner—it might, therefore, appear somewhat presumptuous, to revive a doctrine which has been so unsuccessful, and so severely reprobated by some modern authors of distinction, who contend, that “It is absurd in theory, and experience proves that it is ruinous in practice.”† Admit, if you please, that we may fail in establishing the theory, still we believe the opinion of the learned gentleman premature, inasmuch as his conclusions were drawn from the only two* cases on record, in which this operation has been performed. Yet even in those cases, every surgeon must admit, that the principles upon which aneurisms are obliterated were totally lost sight of—that the performances were at variance with every idea of obliteration, and a cure could not hence be anticipated, even by those who performed the operation: for the blood having a free passage through the tumour, it could never be at rest—coagulation could not take place, hence an obliteration could not have been expected.

That this plan of curing aneurisms is equally applicable to any part of the arterial system, I will not assert; yet, I am of the opinion, that under certain circumstances it should be resorted to. By thus advancing an opinion as to the practicability of the operation, I would not wish to be understood as saying that the chance of success is equal to the present mode

* See Descamp's and A. Cooper's cases.

† A. Burns, on the head and neck.

of curing aneurisms ; but that in cases where the present mode is insufficient to effect a cure, this should be resorted to, as a *dernier* exhibition of surgical skill.

The general principle upon which arteries are obliterated, will be adduced in support of this practice. It would appear that the means used in curing aneurisms, is to intercept the direct current of blood to the sac, or to diminish its quantity and velocity ; and not that the flow of blood into the sac should be totally obstructed : for a pulsation is perceptible in the tumour for several days after the principal trunk is destroyed. The collateral branches being enlarged, convey a sufficient quantity of blood into the sac to continue the pulsation. The blood being removed from its course of circulation, there immediately succeeds an accumulation of coagulum, until the mouth of the artery and sac are completely filled and obliterated. Generally speaking, it is impossible to pass a ligature around any artery for the cure of an aneurism, and not include some branches between the ligature and sac. This accounts for the continued pulsation.

“It is essential in the success of this operation that no large vessels arise from the sac, or from that portion of the artery situated between the sac and ligature ; for the stream of blood passing through the tumour may, under such circumstances, prevent the coagulation of its contents, and continue the disease.”* It is evident from the case related by Descamps, that this fact entirely escaped his notice, or the circumstances of the case were of too desperate a nature to allow its admission.

The tumour was situated in the upper part of the thigh near the Poupart's ligament. From its situation, it was thought impossible to pass the ligature above the sac. The tumour increasing rapidly in size, and the danger of its bursting, urged him to adopt this practice. Although from the de-

* Hodgson on the Veins, page 292.

rangement of its parts, he was not able to select the most proper situation for passing a ligature, inasmuch as the artery was not seen during the operation, but secured by a plunge of the needle ; yet it evidently appears from his own statement, that the Profunda passing off between the ligature and sac would not prevent an obliteration of the cyst ; and that it would have been cured with, at least, as much facility as by the usual practice. His patient, however, died four days after the operation, owing to the quantity of blood lost in opening the sac and securing the ends of the artery. Upon examining the limb it was found that the Profunda remained between the sac and ligature ; and that its trunk was nearly as large as that of the Femoral artery.

Mr. A. Cooper witnessed a case in which the same error was committed. The aneurism was situated in the External Iliac, in which there was not a possible chance of securing it above the sac. The case had been of so long standing, that every moment's delay seemed to endanger the patient's life. The artery was secured between the Epigastric and Profunda. The Epigastric and Circumflex Iliac remaining between the sac and ligature. Could it have been anticipated that an obliteration would have taken place beyond the first collateral branch in the two cases above cited ? Is it not evident from the arteries being between the sac and ligature, that the blood continued to circulate through the cyst with the same facility as it did previous to the operation ; and if not at rest, could coagulum take place ? And may we not add, that in thus performing the operation the very object intended to be accomplished, was defeated ? They appear to have lost sight of the very principle upon which aneurisms are cured : for should a current of blood continue to flow through the sac, it is of no consequence whether it be carried off by anastomosing branches, or directly through the principal trunk ; so long as the blood conti-

nues to flow freely through the artery, it would react upon its stimulus with its usual force, and the blood would be propelled with sufficient velocity into the aneurismal sack to prevent coaptation, and consequent obliteration. Thus it happens when a ligature is applied near a large branch, that a secondary hemorrhage frequently occurs, and the obliteration of the principal trunk is prevented, because there is not sufficient space between the ligature and branch, for coagulum to form.

Mr. Hodgson's case,* is an exception to this general rule, there being sufficient space between the ligature and nearest branch, and yet no coagulum formed, although the patient lived three weeks after the operation. It is, however, a general rule, that when a ligature is applied to an artery for its obliteration, its calibre is destroyed to the next important collateral branch, in both directions. For should a ligature be applied to any part of the carotid artery, previous to its bifurcation, it would be obliterated from its origin to its division at the angle of the lower jaw.

† Dr. Mott secured the carotid artery at the lower part of the middle third, for the extirpation of a tumour situated at the upper part of the neck, and involving all the other vessels arising from this artery. The ligatures came away on the twenty-first day after the operation, and the wound closed as well as the nature of the case would admit; but the disease returning, the patient gradually sunk under the discharge, accompanied with an affection of the lungs, and died three months after the operation.

Upon dissection, the carotid was found completely obliterated from its origin to its bifurcation, leaving a fine ligamentous cord which was divided into two parts, showing the place where the ligature was applied." I have lately had an op-

* Hodgson, Case XXXV. page 198.

† Med. and Surg. Register. Part 2. Vol. I. page 394.

portunity of examining the external Iliac artery which had been secured at the point, where the Epigastric is given off—it was completely filled with coagulum to its origin.

Mr. Hodgson, page 197, thus expresses himself. “I have invariably found the canal of the vessel obliterated and its coats converted into a solid ligamentous cord, in which no vestige of original structure would be traced. In most instances the obliteration extended on both sides, from the part at which the ligature had been applied, to the origin of some considerable ramification; but this does not always occur.”

Although the formation of a coagulum, and the obliteration of the artery, do not always follow the application of the ligature, yet the exceptions are so rare, that it cannot form a serious objection to the usual mode of operating; for it more generally depends upon its location—It may originate entirely from the situation of the ligature, it being located near the origin of some large branch.

* A. Cooper's case of femoral artery, on which the ligature was applied close to the origin of the epigastric, terminated fatally, by secondary hemorrhage, on the fourteenth day after the operation. In this case, there was not sufficient space for a coagulum to form between the ligature and the artery; nor were the adhesions of the artery equal to resisting the force of the circulating blood, which acted immediately upon the mouth of the artery, the distance between the ligature and the branch, not being perceptible. The acute angle which the blood must of necessity make, caused the whole force of the circulation to spend itself upon the newly cicatrized wound. It sometimes happens, that there will be a considerable length of artery between the ligature and the branch, and yet no coagulum will be

* Hodgson on the Veins, page 198.

formed. * The artery remains pervious, and of its usual dimension for the space of two or three inches, during the lapse of twenty years after the performance of the operation.

These cases are, however very rare, and may originate from the fact, that the ligature does not produce an irritation sufficient to cause a deposition of lymph, or that the inflammation does not extend beyond the ligature. It cannot be said, that the circulation is carried on in this insulated portion of the artery; because it is in the same situation as the Hypogastric artery, which is frequently pervious even to the Umbilicus at the adult state. Its coats are collapsed and of their usual size, and therefore its sides would not unite, unless there should be some exciting cause sufficient to produce an inflammation in its mucous coats. Upon the same principle there would be no more probability of an union between the coats of an artery without previous inflammation, than there would be in the folds of the mesentery whilst lying in contract, without any exciting cause. Surely, no one will say that blood is propelled into the useless Hypogastric artery, since as a thing of course, it must return by the same passage through which it entered.

Several cases of unobliterated arteries, notwithstanding the application of ligature, are related by † Mr. Hodgson; in the greater number of which, secondary hemorrhage was the consequence.

However, the above cases cannot be adduced as argument against the general rule, viz. that coagula take place in insulated portions of arteries; since the failure originated from an an improper application of the ligature, or from the age and vitiated habits of the patients.

If the obliteration of the arteries is governed by these

* A. Burns on the Diseases of the Heart, page 230.

† Hodgson, page 201.

general principles, and it be a fact, that by intercepting the current of blood they lose their action and are rendered perfectly useless in carrying on the circulation; is it then reasonable to suppose that a fact so important, can be of no use in the cure of aneurisms; or shall we be deprived of its efficacy because it has failed when improperly performed?

Yet, notwithstanding the violent opposition that is offered to this manner of securing arteries for the cure of aneurisms, its most rigid opponents acknowledge the theory correct, though they discard the practice.

We are told by one theorist, that the adhesion of the sides of a vessel may be procured, provided the flow of blood be intercepted along its canal. If the obliteration of an artery depends upon the flow of blood being intercepted, it is then evident, that, if a ligature be passed upon the distal side of an aneurismal sack, no branches being given off between the ligature and tumour, the blood thus removed from its course of circulation will become coagulated; * for the artery thus abandoned diminishes gradually in its size, until it is perfectly obliterated. In this case, compression is recommended to facilitate a coagulation in the sac, thus depriving the aneurismal cyst of any share in the circulation. If it be thus done, the absorbents will soon perform their part of the process."

If it be admitted that the obliteration of an aneurismal cyst can be accomplished by intercepting the flow of blood through the sac, and that too by its subsequent coagulation, we have then only to prove, that, passing a ligature upon the distal side of the sac will answer the end we have in view, viz: If a current of blood be prevented from passing through an artery, that a coagulum will form and its actions and functions be destroyed.

It is generally admitted that the heart and arteries carry

* Scarpa Wishart's Translation, page 213.

on the circulation; that their actions are mutual, and that either will cease to perform its office when the corresponding action of the other ceases. This fact is illustrated by the ossification of arteries in the extremities; the member becomes cold, insensible, and finally mortifies. * "If an extent of vessel be converted into a calcareous cylinder, it loses its elasticity and organic power, insomuch that it is unable to afford any assistance to the propulsion of blood." It is therefore a strong presumptive evidence, in favour of their action, that should the arteries undergo the same change, the parts to which they are distributed, would not be capable of supporting their vitality—that blood is not entirely dependant upon the action of the heart for its propulsion through the arteries—and that they are not inelastic tubes dependant upon the laws of Hydraulics.

That the arteries do possess active power and materially assist in the circulation of the blood, there can be but little doubt; since in the restoration of a limb after the principal trunk has been secured by ligature, the collateral branches increase their size in proportion to the demand of blood to supply the part, and the action of the vessel increases in equal ratio with its increase in size, thereby carrying on the circulation as effectually as if the principal trunk remained perfect. It would certainly seem erroneous to suppose that the heart determined this increased quantity of blood to the collateral branches, or that it possessed the power of determining what particular parts required more than what would pass through its branches. † "Animals being born without hearts, is a strong confirmation of the belief that arteries perform the functions of the heart until the they arrive at a period when a double circulation is required, when they must of necessity perish. Insects that require but one circulation are without hearts, and the blood is of course propelled by the action of the arteries."

* Hodgson, page 42.

† J. Hunter, page 91.

* "The contractile state of an artery arises from the action of its muscular power, and is restored again by its elasticity." If by any means the elastic coat is prevented from acting, the blood ceases to flow through that artery and seeks new channels to supply the part. We thus destroy the elasticity of the coats by securing the artery in a ligature, hence also destroying the action of the artery, inasmuch as the antagonist muscle is prevented from acting. If there be no other power except the force of the blood to overcome the action of the muscles, the artery would be kept in a constant state of contraction, for the mere force of the heart would not be sufficient to overcome the combined strength of the muscular coats of all the arteries in the system. The facts, which we think are admitted by all who are acquainted with the circulating system, viz: the action of the arteries, and the circulation of the blood being as rapid at the extremities of the arteries as at its origin from the heart, are abundantly sufficient to satisfy the most sceptical.

The danger of bursting the sac, by the force of the circulation, has been considered as an insurmountable obstacle to passing a ligature upon the distal side of an aneurismal sac. Whether this objection coincides with reason or experience, I leave for those to decide who are more experienced than myself; yet, I must say, that, in my opinion, it is at variance with every principle upon which aneurisms are cured. It would be a subject worthy the investigation of the curious and learned, to ascertain at what stage of the disease, laceration is most likely to occur, or whether it ever occurred except when situated in the thorax or abdomen, and even in this situation I may add, it is not a common occurrence. In two cases which I have had an opportunity of examining, it has invariably proceeded from ulceration.

* J. Hunter, page 117.

* Mr. Hodgson is positive in the opinion, that aneurisms never burst from laceration, (with the exception of those cases when the aneurism is situated in the thorax or abdomen,) but by the gradual process of ulceration; and by attending to the different stages of an aneurism, the absurdity of such an objection will plainly appear. In fact, the cyst is capable of making greater resistance to the force of the blood, than an artery possessed of all its natural power.

Aneurisms are properly divided into three stages, 1st, when by the rupture or destruction of the internal coat, the blood escapes and forms a sac, by dilating the cellular tissue.

2d. What John Hunter terms the thickening of necessity, takes place in the aneurismal sac in which the surrounding cellular substance is thickened, condensed and forms a strong wall to the cyst.

3d. The last or ulcerated stage, when the tumour looks black, sphacelates, and pours out blood through many small openings. It, doubtless, must be this last stage that excites so many apprehensions in the minds of the timid. For in the first stage, it possesses a power equal to repelling the force of the circulation, as in the natural state; but with this difference, that it must gradually yield to a force upon which it cannot react. Thus we account for the gradual enlargement of the sac.

In the second we have not only the increased thickness of the parietes of the sac, but also the accumulation of the coagulum, as an additional security against a rupture by force of the circulation.

In the third stage, we are willing to admit that such an effect as is often anticipated, might possibly follow; yet, by applying the proper bandages, or plasters, to the tumour, the practice, even in this extreme case, would still be correct; for it would be the *dernier resort* of nature and art, to sup-

port life. But we contend, that such an occurrence is highly improbable even in this last stage, since the action of the artery being interrupted, the current of blood to that artery must necessarily cease. Mr. J. Bell, in his usual satiric style, ably confutes every supposition of this kind; he says, "When you tie an artery, the blood returns in it backwards, forsakes the obstructed artery, and passes along the other arteries in a backward course."* Under such circumstances, the blood is not driven in this retrograde course by any power vested in the heart; but by the actions of those arteries which are deprived of their usual supply of blood. As a still further proof of the above position, we shall add the opinion of Scarpa, viz: "That whenever the blood meets with a powerful obstruction to its passage through an artery, it leaves that artery and enters another."† It is therefore evident, from the above facts, that the circulation of the blood must depend, in a great measure, upon the action of arteries, as it can exert no force upon vessels after their calibre is destroyed, or when the arteries by their action unite to invite the flow of blood: this admits of demonstration, for when the part ceases to require its usual quantity of blood, the vessel diminishes in size.

The impregnated uterus is supplied with blood in proportion to the growth of the fetus—its quantity is increased in ratio with the demand; for at the birth of the child when so large a quantity is not needed, it ceases to flow—the arteries lose their increased action, and return to their usual size. It is upon the same principle, that nature has provided for the preservation of life after mortification has taken place; for it is the contraction of the vessels that intercepts the current of blood, and forms a coagulum, which extends to the next collateral branch of importance.

* J. Bell on Aneurisms, page 298.

† Wishart's Translation, page 213.

If the coagulum which follows mortification is capable of resisting so effectually the force of the circulation, then the conclusion relative to a ligature being applied to an artery is correct: for example, coagulum will form, and its calibre will be destroyed to the next collateral branch. Varicose veins have been secured upon the cardiac side of the disease, and a rupture was never known to have taken place from the pressure of blood from behind.

Neither is there a fact in support of the position, that aneurisms will burst from the force of the circulation. Guatani relates a case in which there were two aneurisms situated in the femoral artery. They were both large, and distinctly pulsated. The inferior bursted and formed the diffused aneurism. The blood was thus circulated through the cellular substance of the leg, pressing the superior portion so effectually, as to intercept the circulation, and the obstruction to the free passage was so powerful, that its force was spent upon the superior sac, and by its increased velocity produced a rupture.

But we must say, that we have our doubts of the correctness of this influence, and our doubts are not in the least diminished, by referring to the gentleman's own description of the case. He there informs us, that at the time of the rupture, the patient was in a low state of health—so emaciated and weakened, as to be unable to raise his head from the pillow; and notwithstanding all this, the power of circulation was sufficient to burst the sac, and diffuse the blood extensively through the surrounding cellular substance. Is it then probable, that the rupture could justly be attributed to the force of circulation, since there was scarcely vitality in the system sufficient to give it motion, or to ascertain to a certainty that there was a circulation? Is it not more reasonable to suppose, that the antecedent debility was too great for a healthy inflammation, that the powers of the system were so much diminished, as to produce an ulcerative

instead of an adhesive inflammation? For we know, that by a too rapid depletion in phlegmon the power of renovation is destroyed, and thereby the patient is placed in danger of ulceration, and sometimes of sphacelation. Had Guattani informed us of the actual state of the sac after death, or examined it critically himself, he would unquestionably have given us a different opinion. In all probability he would have found the sac which had given way, thin, ragged, and wholly incapable of supporting its own weight.

By referring to my note book, I find a case similar to the one related by Guattani. I. Jackson, a sailor, was admitted into the New-York Hospital, September 19th. 1821, aged thirty-two years. He was received for two aneurisms situated in the course of the femoral artery. The inferior was of six weeks standing, the sac having given away one week, previous to his arrival in the city. The blood having extensively diffused itself through the cellular substance, from the ancle for some distance above the knee, there was no pulsation perceptible; for the surrounding parts were so perfectly filled with blood, that without doubt, it destroyed the circulation for some distance below the disease. The superior tumour had a pulsation, and from the constant sufferings of the patient, and the length of time the disease had existed, the system had become very irritable. He appeared very much exhausted, both in mind and body. These circumstances, prevented the possibility of gaining a correct history of the disease.

From the occupation of the patient, and the circumstances of the case, it was thought advisable to preserve the leg if possible, by securing the femoral artery above the sac. He remained very comfortable for two days after the operation, and strong hopes were entertained of his speedy recovery; but on the third day, a vesication appeared on the foot with a cadaverous coldness extending to the knee. The symptoms increasing on the fourth day, it was found

necessary to amputate the thigh in order to preserve life. There was but a small quantity of blood lost while performing the operation, yet, from the great irritability of the system, he survived four hours only after the operation. Upon examination, the inferior cyst was found about two inches above the tendonous arcade of the triceps, and the parts which had given way, were found very thin and ragged. The rupture evidently proceeded from ulceration.

The superior cyst was situated one inch below the profunda. It had a dark and lobulated appearance, and was evidently on the point of bursting.

There are some very important facts connected with this case which I must beg the privilege of citing.

1st. The aneurisms appearing without any sensible cause, and the rapidity with which they terminated, both of which appear to be at variance with the general rule, viz. that aneurisms are always slow in their formation; and even those that originate from punctures, are formed gradually.

2dly. This man stated, that some time previous to the tumours appearing, he had been under a severe ptyalism for the venereal disease.

A similar circumstance is related by Guattani, in his case of spontaneous aneurism. And although he has not suggested it as predisposing the system to disease, I can see no objection why it should not by enfeebling the system, produce a state of irritability, and predispose the arteries to this disease. That mercury has any specific effect upon the arterial system independent of other parts, I will not say; but I do consider it a subject worthy of the consideration of those who profess a thorough knowledge of the pathology of the human system. I shall be satisfied if the present case, does but tend to prove, that an obstruction to the free passage of the blood, will not be sufficient to lacerate the sac of an aneurism.

There is some analogy between this case and an aneurism

of the Carotid, in which the ligature is passed upon the distal side of the sac; for between the two cists there were but two small arteries, and those not of sufficient size to destroy the force or velocity of the blood: therefore, if it be true, that the heart possesses power sufficient to lacerate the sac, it would undoubtedly, have occurred in this case. This appears evident from the facts, that there was an obstruction to the current of the blood, and that the superior sac had not formed an adhesion with the surrounding parts. This nonadhesion may have been one principal cause of its rapid growth and rapid termination. There was a considerable quantity of coagulum formed in the upper part of the sac; from a small quantity of blood continuing to circulate through the cyst, the pulsation continued, and the process of coagulation was in a certain degree destroyed. * Mr. A. Cooper saw a case of aneurism situated in the external Illiac, and from its size, situation, and advanced state, it was impossible to pass a ligature superior to the sac. The artery was, therefore, secured below the cyst, between the Profunda and Epigastric arteries. The pulsation continued till the death of the patient. The ligature came away in due time, the wound healed, and the tumour diminished in size; and it was generally believed that a cure would be effected. But the patient imprudently went into the country for the restoration of his health, the tumour progressed gradually till it arrived at a state of ulceration; and in six weeks after the operation, the eschar separated, and the tumour discharged its blood into the cavity of the peritoneum, and occasioned the death of the patient. *Quere*, Were the gentlemen's fears realized as to the bursting of the sac, and thus consigning the victim to immediate death? On the contrary, under circumstances peculiarly opposed to every prospect of affording relief, there was a diminution in the size of the

* Hodgson on the Veins, page 201.

sac. In this case, the blood had a free passage through the sack, and was carried off by the collateral branches between the ligature and the tumour, and these branches gave almost as free a passage to the blood, as the original trunk had formerly done.

However, I am inclined to the idea suggested by Scarpa, Corvisart, Richerand, and Hodgson, viz: that it does predispose the system to the disease. Descamp's case was, in this respect, equally conclusive, and evidently goes to prove the fact, that aneurisms never burst by the force of the circulating blood. For it would be absurd to suppose that the blood makes such a powerful exertion to force its passage, when the principal trunk is obstructed. This would force us to the supposition that there was a redundancy of blood, and no other channel through which it might pass off; or, rather it acted like a rapid current obstructed in its course, where the greater the obstruction the greater would be its force, arising from an accumulation behind. I trust, however, the number of those who, at the present day, adhere to such palpable absurdity, is small.

If the doctrine of obliteration, as received in the schools at this day, be correct, and founded upon facts, is it not surprising that the same objection has not been offered to passing a ligature around an artery, under any circumstances whatever? for the same obstacle presents itself in passing a ligature around an artery in other cases; if by passing a ligature around an artery we intend to obliterate it, by separating its two internal coats: and we are informed by Mr. Jones that this must necessarily take place, in order to produce a complete adhesion. The object of tying an artery, is "to cut through the internal and middle coats, and bring the wounded surfaces into perfect contact."* The ligature has this effect upon the artery, and we therefore place it in the

* Jones, page 161.

same situation as we do the first stages of the aneurism ; for an aneurism consists in the rupture of the proper coats of the artery, and consequent effusion of arterial blood under the cellular sheath.

The inference is therefore a correct one, viz : that if the blood continues to exert its force upon an artery after its action has ceased, we should, in every effort to produce obliteration by ligature, invariably cause an aneurism. But we consider an artery, after an impediment is offered to a free passage of blood, similar to the Ductus arteriosus, and Hypogastric ; for the arteries never would become obliterated, if the circulation depended entirely upon the momentum given to the blood by the action of the heart. "The blood is invited to flow by the action of the arteries, and stops when the action of the arteries ceases."

To suppose that the arterial system is not governed by the same laws, and that it is not acted upon by the same living principle as other parts of the organic system, betrays an ignorance unpardonable in this enlightened age. It was an unfortunate circumstance, that a Surgeon of the standing of Descamp should fail in his first attempt to introduce this practice, inasmuch as the opinions of such men as himself and Cooper, are too apt to dissuade others from making an attempt in which they have failed, resting fully satisfied that if they have condemned the system, it must therefore be impracticable. By thus implicitly adhering to the opinions of those who stand high in their profession, we forget that they are only men, and therefore subject to error. We neglect to investigate, because they condemn : we dare not recommend to others, what these great men have denounced. But in the present case, that system which art and influence have rejected as erroneous, nature has demonstrated to be true, and thus exposed the fallacy of all reasoning and the liability of men to err in judgment, whilst their intentions are perfectly pure.

The opinion that aneurisms might be obliterated by pressure anterior to the sac, and that they did occasionally undergo a spontaneous cure, was an idea entertained by Scarpa, E. Home, and others; however, they never carried their system into operation. By referring to the records of Surgery, a sufficient number of cases may be found to confirm the belief in the correctness of the practice.

Mr. Hodgson's dissections of patients who died with this disease, throw much additional light upon the subject; I shall therefore take the liberty of making free extracts from his treatise: (Case XIX. page 11.) was that of a robust soldier, who had for three years been afflicted with a very large aneurism of the aorta, which had caused the absorption of the whole of the upper bone of the sternum, and appeared externally in the form of a large pulsating tumour, extending nearly as high as the chin. Some months after he came under our care, he died, worn out by the extreme impediments to respiration, and an inability to permit even fluids to pass his œsophagus. For it was afterwards ascertained, that the pressure of the tumour had produced sloughing and ulceration of a great portion of that tube. This great aneurism arose from the anterior part of the arch of the aorta, and filled the upper part, more especially the left side of the thorax; the left sub-clavian artery, resembling in its size and shape, a very large chesnut. The aneurism of the aorta, by compressing a portion of this artery beyond the little aneurism, had caused its obliteration. The small aneurism was nearly filled with layers of coagulum, and the sub-clavian artery from the point where it emerged from this little sac, was completely filled with a firm ligamentous substance. The vertebral, the internal mammary, and superior intercostal arteries, were much contracted, and filled with a similar substance. Thus had the cure of this little aneurism commenced, in consequence of the pressure which the greater one had produced upon the

subclavian artery. The inferior Thyroid artery was not obliterated, and through it the blood must have passed in a retrograde direction into the trunk of the subclavian artery; which although much contracted, was pervious to this point. In consequence of the removal of the parts, I was not able to trace the vessels through which the circulation was carried on, but it is highly probable that the circulation was through the branches of the inferior Thyroid, the Cervical and the Supra-scapulary arteries, all of which anastomosed very freely with corresponding arteries of the opposite side, and with the branches of the superior thyroid, the occipital and the vertebral arteries. Nothing indicated the obstruction during life, but it was remarked, that for many months previous to the death of the patient, the pulse could not be felt in the left wrist.

The second case, which is in most respects similar to the first, is given by Mr. Hodgson, (page 113.) This case is related by M. Beauchine in *Corvisart's, Leroux, and Boyer's Journal de Médecine*; "The Princess of G——, about sixty years of age, died of the Dropsy in the chest and inflammation of the Intestines; the calibre of the Aorta was dilated to at least three times its natural extent." The subclavian artery was slightly dilated, and contained from its origin to the part which passes behind the scalenus, a dark coloured clot of the consistence of jelly. That portion of the vessel which passes behind the scalenus, for the extent of an inch and a half, was filled by a very fine grey plug, which was impermeable to the blood, and adhered so intimately to the coats of the artery, that it could not be separated without laceration. This portion of the vessel was intimately connected to the surrounding parts by dense cellular membrane. Its calibre appeared contracted; but from its inferior side a small sac originated, which rested upon the upper rib, and was filled with a friable clot of a dark grey colour."

Besides the above cases, many are recorded by Desault,

Petit, Baillie, Ford, Guattani and Corvisart, in which the spontaneous cure of aneurisms was effected without the interference of art. I am not conscious that this operation has been exclusively applied to the Carotid, or is applicable only to the aneurisms of that artery. If it is so, I have not been able to acquire the information, either from my reading or from my seniors in the profession. The idea of tying the artery upon the distal side of the aneurismal sac, suggested itself to me almost at the commencement of my studies; on examining a tumour situated immediately above the clavicle: from the pulsation communicated to it by the artery, I mistook it for aneurism, and suggested to my preceptor, Dr. V. Mott, the practicability of securing the artery below the tumour, who honoured me by mentioning the subject to his class in the winter of 1820-21.

I have considered this mode of curing aneurisms as applicable only to the Carotid. I am, however, of the opinion, that it may, with equal propriety, be applied to the common Illiac; for the same facts which support one case are equally applicable to the other. But as the Carotid first attracted my attention, I shall confine my remarks particularly to that artery, and to substantiate the position which I have advanced on this point, I need only urge the arguments already advanced.

1st. That this artery never gives off branches from its origin to the angle of the jaw, except it bifurcates low in the neck; which is a very uncommon circumstance, and occurs not oftener than once in a thousand cases. I know of but one case on record, viz: the one mentioned by Mr. A. Burns; besides, there is never any danger of branches remaining between the ligature and the sac.

2d. That by stopping the current of blood through an artery by ligature, the artery is always obliterated to the next collateral branch, in both directions. Hence the artery is obliterated from its origin to its bifurcation.

3d. That the action of the heart and arteries are mutual;

the heart can exert no influence upon the arteries after their action ceases; the blood then coagulates, and obliteration necessarily must follow. It is upon these grounds that I conceive this operation applicable only to the Carotid, it being the only artery in the human body, upon which the operation would be performed with a certainty of not meeting with collateral branches. It is the longest artery in the system that does not give off branches, and those at irregular intervals; in this respect there is a regularity truly admirable.

The difficulty of distinguishing an aneurism, which originates from the arch of the Aorta, Innominata or Subclavian, from one that originates from the Carotid, may present itself, as an insuperable objection, particularly to the young practitioner, and cause him to doubt the propriety of performing this operation; and his doubts may still be increased by the fact that he is to be guided by no one symptom, but by a combination of symptoms.

With a history of the case, an experienced surgeon may, with some considerable degree of certainty, determine the seat of the disease. Mr. A. Burns was consulted in a case of an aortic aneurism, which he mistook for one of the carotid. It was situated behind the clavicle on the auroméal edge of the sterno mastoid muscle; there was no pressure made upon the "*Aspera Arteria*," yet the numbness and œdema of the arms, together with the irregularity of the pulse, would have been sufficient, in my humble opinion, to have distinguished it from an aneurism of the carotid; for I know of no case in which an aneurism of the carotid would have produced a like effect upon the arms. At least we can find none by examining the history of carotid aneurisms. The situation of the tumour in the neck might sometimes lead to this mistake, because the clavicle and sternum does not give free passage to the tumour. "From this circumstance, the disease has the appearance of originating above the chest, and in many instances, the stricture formed by the resistance

of the clavicle and sternum is so considerable, that it appears to tie the artery between the sac and the chest." Mr. Hodgson has seen one case of this kind, which appeared so distinctly above the clavicle, that it was proposed to pass a ligature around the artery below the sac. But, upon dissection after death, it was found to arise from the arch of the aorta and innominata. Being perfectly ignorant of this subject from practice, I know of no better way of communicating a correct idea upon it, than by extracting the two following cases from Mr. Hodgson, Case XIV.

* A robust man, between thirty and forty years of age, had been for several months afflicted with an extreme difficulty of breathing, great pain, and a sense of suffocation at the upper part of the thorax, a constant irritating cough, and a copious expectoration of thin frothy mucus. † These symptoms resembled those of incipient phthisis pulmonalis, except the thin and frothy state of the expectoration, and the absence of fever.

‡ "A robust man of about forty-seven years of age, died on the 16th of January, 1822. For some months before his disease, he had been afflicted with a great difficulty of breathing and weasing cough; a quick, strong, and regular pulse; difficulty in swallowing; and a severe pain in the region of the collar bone, extending over the dorsum of the scapula to its inferior angle; and a sensation of numbness, and a want of natural feeling in the right arm and fingers. Soon after the commencement of these symptoms, a pulsating tumour was observed a little above the sternal extremity of the right clavicle. He had a constant hacking cough, which was frequently accompanied with a croup-like noise, and an expectoration of thin mucus, which was affected with ex-

* A Burn's Surgical Anatomy of the Head and Neck, page 32.

† Mr. Hodgson on the Veins, page 90.

‡ Case XX.

treme difficulty of breathing. Upon dissection, an aneurism was found to have existed at the anterior part of the arch of the aorta, near to the origin of the innominata."

The important rules laid down by Mr. A. Cooper, for distinguishing aneurisms of the carotid, from those situated in the chest, are very conclusive, viz: The difficult respiration, and deglutition which is produced by the pressure of the sac upon the trachea and œsophagus. The fascia of the neck would never confine an aneurism of the carotid sufficiently, to produce this symptom to any great degree. The numbness, pain, and œdema, of the superior extremities, could never be produced by the pressure of a tumour of the carotid, on the axillary nerves and absorbents. These symptoms may, however, be produced by a disease of any other artery which is situated near the neck.

Many exertions have of late been made, to distinguish the different aneurisms originating above the upper part of the chest. Although it may please the inquirer to discover something new; and though in these excursions of the imagination the object may be to exercise the mind, and improve the practice, yet the nice and particular distinctions thence arising, can be of no possible use to the operating surgeon. Agreeable to the present recorded opinion it would be of no consequence to the patient, whether the disease existed in the lower part of the carotid, innominata, or aorta; in these situations, they would be equally fatal. If an aneurism was situated in the lower part of the carotid, lying upon, and passing over the clavicle, it would be as impossible to pass a ligature below the sac, as it would to secure the aorta. And I doubt much, whether there is any surgeon so palpably ignorant as to make the attempt. Hence, a patient under these circumstances, must inevitably die, and with the poor consolation of having had every possible assistance that art could afford. Should this mode of practice be considered worthy of adoption, those

nice distinctions would then be of great importance, and it's further investigation would be a subject of interest to the profession.*

Should a case occur in which this practice should be deemed advisable, it might be thought proper to pass the ligature at the middle, or at the superior part of the middle third. This I would recommend for two reasons, 1st. That the disease of the artery might extend beyond the mere limits of the sac, and thence produce an ulceration rather than an adhesive inflammation. It would make not the least difference, as far as the result of the operation is concerned. It would as effectually obliterate the artery if it were at the superior thrid.

2d. By passing the ligature low down we might endanger the branches of the recurrent nerves, particularly near the intersection of the omo-hyoid muscle; for Mr. Burns observes, that here the branches are large and numerous.

(* For further particulars respecting the distinctions between aneurisms of the upper part of the chest, I would refer to Mr. Hodgson on the Veins, and to Mr. Burns on the Surgical Anatomy of the Head and Neck.)

To this might be added what surgeons have termed the medical treatment, or spontaneous cures of aneurisms, in which the system of depletion was carried to a great extent. It is of the most ancient date, and was followed with much success, previous to the introduction of the ligature. It is said, that Valsalvo Morgagni, Albertini, Pelton, and many others, performed many and great cures by this practice. Should the efficacy of the former be doubted, this might likewise be added, and what one failed of doing the other might accomplish.

ERRATA.

Page 404, line 13, for *below* read *above*.

Page 405, line 22, for *auroméal* read *acromial*.

Page 406, line 20, for 1822 read 1812.

A Meteorological Synopsis, in connection with the prevailing diseases for sixteen years, as they occurred in Salisbury, Massachusetts. Communicated by Dr. JOB WILSON.

Temperature for 102 days, viz. from the 1st day of June to the 10th of Sept.	Mean greatest degree of heat of the Days.	Mean lowest degree of heat of the Nights.	Difference between the heat of the Days and Nights.	Mean temperature of the hot season, from June 1st to Sept. 10th	Greatest degree of heat for the year.	Lowest.	Range of the Thermome- ter.	The four greatest diurnal variations which have occurred in each year.			
A. D.								Feb.	Feb.	May.	Oct.
1806	78,7	62,0	16,7	70,3	91	13*	104	38	38	35	35
1807	79,2	59,38	19,62	69,19	90	7*	97	39	53	55	37
1808	77,53	63,71	13,82	70,62	92	13*	105	37	32	32	43
1809	72,69	59,67	13,02	66,18	87	23*	110	33	36	31	36
1810	76,81	61,61	15,20	69,21	88	12*	100	53	32	28	33
1811	77,09	63,59	13,50	70,34	94	15*	109	35	32	33	32
1812	75,76	60,50	15,26	67,73	93	16*	109	45	43	46	46
1813	78,59	59,04	19,55	67,81	94	14*	108	45	61	61	50
1814	77,80	60,16	17,64	69,02	93	21*	114	49	48	49	41
1815	75,88	59,14	16,74	67,51	91	21*	112	32	41	39	36
1816	77,43	52,76	24,67	65,9	95	18*	113	46	53	48	43
1817	78,38	55,86	22,52	67,12	99	18*	117	49	44	41	44
1818	81,57	58,69	22,88	69,82	97	19*	116	44	54	41	35
1819	82,51	58,89	23,62	70,70	97	18*	115	51	43	43	36
1820	84,78	59,88	24,80	71,93	100	18*	118	48	41	44	40
1821	81,73	57,76	23,97		97	20*	117	50	43	35	38

* Below zero.

1806—In the cold season, Rheumatism, Catarrh, Synocha, Cephalitis, Erysipelas.—In the warm season, Cholera-Morbus, Bilious Synocha, Typhus, and Dysentery.

1807—Cold season, Violent inflammation of the head, affecting one side, and of the teeth, Pleuritis of a more malignant kind than usual.—Warm season, Cephalalgia, Cholera, Influenza, Pleuritis.

1808—Cold season, Synocha, Rheumatism, Pleurisy, Colic, Cephalalgia.—Warm season, Bilious Synocha, and Bilious Typhus.

1809—Cold season, Synocha, Odontalgia, Rheumatism.—Warm season, Diarrhœa, Synochus, Synocha, Otitis.

1810—Cold season, Sphacelus and Spotted Fever.—Warm season, Cephalalgia, Diarrhœa.

1811—Cold season, Ophthalmia, Erysipelas, Catarrh, Cephalalgia.—Warm season, Bilious Fever.

1812—Cold season, Pleurisy, Pneumonia, Spotted Fever.—Warm season, Typhus Fever, Synochus, Swelling of the tongue and throat.

1813—Cold season, Spotted Fever, Rheumatism.—Warm season, Colic, Typhus Fever, Rheumatism.

1814—Cold season, Spotted Fever, Rheumatism.—Warm season, Typhus Fever, Ophthalmia.

1815—Cold season, Pneumonia Typhoides, Spotted Fever.—Warm season, Cephalalgia, Influenza.

1816—Cold season, Colic, Spotted Fever, Peritonitis, Inflammation and swelling of the throat and tongue.—Warm season, Typhus Mitior, Puerperal Fever.

1817—Cold season, Spotted Fever, Inflammation of the tongue and throat, Puerperal Fever, Scarlatina.—Warm season, Puerperal Fever, Colic.

1818—Cold season, Spotted Fever, Puerperal Fever.—Warm season, Malignant Dysentery, Malignant Bilious Fever, Black Vomit, Typhus Icterodes.

1819—Cold season, Spotted Fever, Cynanche Maligna.

—Warm season, Cholera-Morbus, Malignant Bilious Fever, Typhus Icterodes.

1820—Cold season, Spotted Fever, Inflammation and an unusual swelling of the throat and tongue, Cynanche Maligna.

—Warm season, Malignant Bilious Fever, Typhus Icterodes, Typhus, Peritonitis, Malignant Dysentery, Cynanche Maligna.

1821—Cold season, Spotted Fever, Typhus, Pneumonia, Cynanche Maligna.—Warm season, No Prevailing Disease.

1822—Cold season, Catarrh, Rheumatism.

My present object is mainly an inquiry into the causes, nature, and treatment of our Summer and Autumnal Epidemics, viz: Bilious and Typhoid Fevers, Dysentery, Cholera, and their kindred diseases; to be conducted in as short and concise a manner as the subject will allow. The calculations in the above table, especially regard the warm season, and are for one hundred and two days, viz: from the first of June, to the tenth of September, except the year 1818, which includes the ten last days of May, and the seven first days of September, viz: 109 days. The year 1820 is for 103 days, viz: from the first of June to the eleventh of September. The year 1821 includes only the nine first days of September, viz: 101 days, (for thus was the hot season varied, in those years.) A continued series of observations, carefully made by one person for sixteen years, in various points of view, possesses many advantages. We hereby perceive the agency which any particular kind of weather has, in producing or aggravating any variety of disease: and we may likewise, observe the salutary effect which a favourable state of the weather has in restoring and preserving health. These changes varied through a great variety of degrees, attended with different and opposite circumstances, and producing disease, or restoring and preserving health, in proportion to the different operations of those causes, and the co-operation or opposition of circumstances for so long a series of time, must be very conclusive.

We have reason to suppose, that the extensive clearing and cultivation of so vast an extent of country as ours, might have a considerable effect on the climate ; and the table before us will show, that the range of the thermometer has been increasing for at least sixteen years, and we fear that it has not yet attained its ultimate bounds. It may be asked, why the clearing a country of its woods, and its cultivation, should increase the extremes of heat and cold ? It would appear to be caused by the cold air in the north, passing more readily and in much less time than formerly to the south, and the warm and usually moist air of the south has more easy access to the north ; and passing over a cultivated country, it acquires heat as it progresses, from the arid surface of the earth ; which may account for our experiencing warmer weather at times, in the northern extremity of the Union, than they do who are in the southern extremity. Yet it is not when the wind is directly South, that we in the North-Eastern section of the Union experience the greatest heat ; because this wind blows almost direct from the sea ; but it is when the wind is South-West, West, or even to the North of West. The winds being principally derived from the Trade winds, and falling on the continent far to the south, from its figure and other opposing causes they form reflected currents, which are more or less extensive according to circumstances, and are occasionally mixed with different portions of air from the North-West, and forms our North-West, West, and South-West winds.

Respectfully yours, &c.

JOB WILSON.

SALISBURY, N. H. 10th April, 1822.

N. B. The design of the foregoing Table, is to express the most prominent features of the warm season in each year, viz :—The mean temperature of the days and nights, their difference, or the mean diurnal variation ; likewise, the mean temperature of the sea-

son, and the annual variation, or the difference between the warmest day in summer, and the coldest day in winter; and the four greatest diurnal variations which have occurred in each year. But beside these, there are many other smaller variations, and as it will be understood, many other particulars are of necessity omitted, such as the moisture of the air, and the effect which one year has on the next immediately succeeding; and likewise the effect which a number of years has on the constitution, and many other circumstances, too numerous to mention. A short history of the eight last years in the table is contemplated. The history of the nine first years has been published.



Observations on Cynanche Parotidæa, as it occurred in the New-York State Prison during the winters of 1821 and 22.
By ANDREW HAMERSLEY, *Resident Physician.*

IT too frequently happens in the history of medicine, that the degree of importance attached to any malady, is measured only by the variety or difficulty of the means employed to counteract its effects. In a practical point of view, a deduction like this would not seem unreasonable: but on the page of medical science, must be blended correct pathological investigation with scientific and rational inference. To him, who shall give all his attention to the simple exhibition of remedies, regardless of the more hidden phenomena of the physical man, the dignified and ennobling office of the physician, sinks into an occupation purely mechanical, conducted by no intellectual refinements, and fixed on no solid basis. The nice observer of nature will frequently detect in the examination of any disease, certain peculiarities essentially connected with it, and draw from those peculiarities certain well defined conclusions, which to him whose mind is capable of no such efforts, whose reasoning faculties can originate no idea, and receive no impulse but what is

conveyed by the medium of organic vision, will probably appear but as the conceit of the philosopher, or the whim of the theorist. There is perhaps no science which will so readily admit of unsound deduction, and where the mind may so readily be betrayed into error, as that of medicine.

Man, whose physical constitution, 'tis her province in health, so to retain, and in sickness to repair, has so many secret agents working within himself, which neither the keen eye of mental research, nor the steady hand of the diligent dissector can bring to light, and is moreover operated upon by so much extraneous influence, that the contemplative mind, however advanced in its deep investigations, is in every step more and more forcibly struck with the sentiment of its own imbecility, even while considering the grand machinery of the tenement of clay with which it is enveloped. Every part of the human system is governed by its own peculiar laws, and yet bears an intimate and inseparable union with the great whole. In this interesting scheme, the operations of the glandular system offer a wide and rich field of philosophical observation. It has however been the lot of that variety of affection which is the subject of the present attempt, to have received as yet but a very moderate share of medical regard.

In relation to Cynanche Parotidæa, authors have said but little, and it can hardly be otherwise explained, than by the simple course it generally assumes, and the little opportunity it affords for the exercise of the healing art. Children are its subjects, and for its cure the prescriptions of the nursery a sufficient guarantee. A careful investigation however into its particular character, and an enumeration of its accustomed varieties, will serve to procure for it that degree of consideration, to which its singular effects fully entitle it.

The following remarks comprise the result of such experience as was obtained during the prevalence of the disease in the New-York State Prison, from the commencement of

the month of December, 1821, to the first of February, 1822. They are drawn from a clinical record, regularly kept by the then attending physician, Doct. William Hamersley, during the sitting of the medical college in this city. For the purpose of greater accuracy, the substance of these notes is here precisely stated in a digested form, adhering to the order of dates as marked in the case book.

The first mention made of the disease is under date of December 8th, 1821, at which time, no less than fifteen prisoners presented themselves, bearing its diagnostic marks.— These were all males, and were occupied in different shops. Thus the disease did not appear at first in any particular part of the building where the convicts lodge, nor of their working apartments which are located in different parts of the inclosure adjoining the river. The general symptoms were those of tumour of the parotis or maxillary gland, producing pain and stiffness at the angle of the jaw, with difficulty of deglutition. In many cases it invaded with chill, succeeded by fever. In one of those which are thus cited, it was accompanied with strong inflammatory action, requiring general and local depletion, by the use of the lancet, blistering, and so forth.

December 15th. An addition of three new cases, males. An anomaly here occurring merits remark, where the affection of the face was very slight, but accompanied with a sense of pain and swelling, not of the testis, but of the spermatic cord.

December 18th. Two new cases, the one marked by a large tumour of the maxillary gland of the right side, the other, by slight swellings of the glands on each side. At this period, cases of *Cynanche Parotidæa* were reported as occurring in the village of Greenwich. In the prison it had yet been confined to male subjects, nor had it appeared in the New-York Hospital, or in the hospital attached to the Alms House.

December 22d. Eighteen cases have occurred since last

report, one of which is a remarkable variety, viz : a swelling of the testis unaccompanied with any tumour about the angle of the jaw. It is also important to remark, that at this time a gentleman frequenting the shops in capacity of contractor, showed evident symptoms of the disease. This is noticed in particular, because the person alluded to, visited these shops only during the day, and resided in the village.

December 28th. Fifteen additional cases—one subject had become a prisoner since the first appearance of the disease. The aggregate number about fifty-three. This is the last note of the year 1821.—The succeeding is under date of—

January 8th, 1822—Which states ten additional cases.—The weather had now become much milder than for some days previously, during which extreme cold had been experienced.

January 12th. Three additional cases in the male department. At this time was noted its first appearance among the females, a single individual being attacked with its ordinary symptoms.

January 22d. Two further cases among the males, three among the females. The complaint evidently subsiding in the former, and progressing in the latter department of the house. Total at the present time, seventy-two.

January 29th. An increase of three cases among the females—two among the males.

February 5th. The complaint appears to have run its course among the males.—An addition of three cases among the females, where the disease had in every instance been seated in the jaw, with a single exception, in which it was accompanied with a slight pain of the breast, but no swelling or induration. Here the progress of the malady appears to have been stayed. The aggregate number of cases amounted to Eighty.

We have thus attempted to exhibit this affection, marking

the different degrees of its progress to the period of its cessation.

As interesting deviations from its ordinary course were manifest during its spread, it has been thought expedient to offer the following schedule, where its varieties are noticed under distinct heads, with the number of patients belonging to each.

SCHEDULE.

1st. The regular form of the disease, with accompanying tumour, difficulty of deglutition, and ordinary symptoms, - - - - -	62
2d. The swelling of the gland, parotid, or maxillary, (or both) accompanied with, or succeeded by an affection of one or both testes, - - -	11
3d. An affection of one or both testes, independent of any stiffness or tumour of the jaw, - - -	6
4th. The regular character of the disease, accompanied with general inflammatory symptoms, -	1
	<hr/>
Total -	80
	<hr/>

It will be here observed, that of this number, there were six individuals, in whose cases the disease spent itself on the testicles. In a part of these also, only one testis was affected. Thus were it not that these cases occurred during the rage of this epidemic—and a recollection of this so common metastasis, we should have been without the diagnostic marks of the complaint. Bearing in view however, these points, it was easily known how to explain and where to refer it.

As one or two of the varieties comprised in our schedule, have been altogether neglected, or slightly regarded by au-

thors, it may be demanded whether, in strict propriety, they should be received as constituting a regular though rare form of the disease, or ranked with those anomalies which are the common offspring of every epidemic. A mere recurrence however to the fact, that the complaint under consideration, when marked by inflammatory diathesis, has by every writer been made a particular species; and by reference to the whole number of cases mentioned in the present communication, that only one instance of such diathesis is noted, while six cases are mentioned of primary affection of the testicle, unaccompanied with any stiffness or tumour of the jaw; we deem ourselves authorised in making it a determinate mode of invasion hitherto but little attended to. And moreover, a probable reason may be assigned for their oversight, in referring it to that general want of detail in the minutæ of the malady, which is so frequent a subject of remark.

Two particulars essentially connected with these observations, merit attention, to wit: the character of the weather for the time being, and the character of diseases as occurring throughout the city. As respects the former of these circumstances, our notes furnish some information. Under date of Jan. 6, it is observed, since the beginning of the present year; the weather has been extremely cold. The North River is covered with floating ice, and the thermometer last evening at two miles distance from the city, was four degrees below zero. At 10, A. M. of this day, the mercury stood at four degrees above zero, at a west exposure of the prison. Two days later, we find the following: The weather has become sensibly milder—This day, snow storm and rain. For some days succeeding the above notices, the weather continued moderate, and at this time, the disease had nearly disappeared among the men, and one female subject was recorded. Towards the close of the same month, (January) the epidemic had nearly ceased.

In reference to the general character of disease in the city, we may state from medical sources, that it partook much of affections of the neck and throat, such as glandular attacks similar to those which appeared at the prison, together with affections of the mucous membrane of the throat.

There occurred in my father's private practice, a case of *Cynanche Parotidæa*, marked by the common symptoms, which, terminated in suppuration. All this would argue a condition of atmosphere of some peculiar kind, acting as the remote cause of the disease. We may readily infer, that however vitiated may have been the air in any given space in the neighbourhood of the prison, it would by the peculiarities connected with the establishment, receive fresh vigour. These particular circumstances may be thus defined: First, the confined and tainted air of the house, where the prisoners are locked in separate halls, containing from four to five lodging rooms, in each of which sleep from ten to fourteen convicts.

In crowded apartments like these, measuring on an average about twenty feet in length and sixteen in breadth, it can easily be inferred that materials are not wanting for creating a state of atmosphere equal to the production of almost any epidemic virus.

The second circumstance alluded to, and which flows indeed as a consequence of the first, when taken in connexion with the other incidents unavoidably belonging to a place of punishment, as sedentary modes of life, nature of diet, and so forth, is, the general remarkable tendency to the formation of glandular affections. These are the permanently acting causes influencing gradually the health of every individual within the walls, which excited in common with other places by some more widely extended influence, produce a certain action in the bodies of these unfortunate men, which shall be followed by certain morbid results.

This would appear the simple and evident rationale of

epidemics, as they frequently exist in penitentiary establishments. It is reasonable to conclude from these facts, that *Cynanche Parotidæa*, as it occurred at this time in the State Prison, was endemic, at any rate so far as all glandular diseases are liable to be, and many of them daily are engendered in the institution; as for instance, scrofula, a disease of the habit, and therefore to be only detected by the slow agency of constitutional operations, and unlike the affection under consideration, whose rise is rapid and duration short. But in accordance with what we have stated, there was some more general atmospheric agency, producing results of a similar nature, in different parts of this extensive metropolis. What is then our deduction? That the prison contained within itself, as it were, certain morbid principles, particularly invading the glandular system. So far then, the mumps or any other similar affection which might have occurred, may be considered as epidemic; but that there was also some more extended influence, independent of, and super-added to, *endemic localities*, by which it assumes the character of epidemic. This same *general* influence by itself, could not have made the disease epidemic at the prison, or it would have affected the same in the city at large, where, however, the other circumstances enumerated as of important bearing at the prison, were absent. But if we pretty clearly demonstrate the existence of local endemical influences together with constitutional epidemical agencies, where shall we dispose of the principle of contagion, a principle supposed to be intimately blended with the nature of this disease?

'Tis an important rule in every reasoning process as laid down by the celebrated Newton, to assign no more causes for any result than are sufficient for a clear explanation.— And whatever variety of causes may exist, it would seem that those most apparent and consistent should be preferred. 'Tis, however, a contempt of these philosophic precepts which has served so much to bewilder the paths of the in-

quirer respecting these maladies, which books of medicine equivocally term, and vulgar prejudice presumes to be so universally contagious. However, without here further debating this point, which has set at issue so much learning and ingenuity, we shall content ourselves with such reflections, as the *facts* which transpired during the continuance of the complaint at the prison, shall authorize. An impartial retrospect of these facts will not afford much ground for asserting the presence of contagion. Fifteen men were first attacked, in different work shops, without any more direct communication than what is allowed among the prisoners generally. So, in the course of the epidemic, it observed no regularity of progress. The case of the gentleman, (a contractor,) who daily visited the shops, but resided in the village, has a relation to the subject.* He unquestionably received the influence from his repeated intercourse with the establishment, but communicated it to no other person. Indeed, from a survey of every thing connected with this interesting malady as it occurred at the State Prison, the idea of specific contagion can hardly be entertained.

Something respecting any morbid condition of parts which may have remained after the subsidence of the epidemic, might naturally be looked for. For more complete satisfaction on this head, all such patients as experienced any affection of the testicle, were submitted to inquiry and examination. Nothing, however, was discovered in relation to such chronic changes, as indurations, and so forth, as authors sometimes intimate. where the common metastasis has occurred. No case ended in suppuration of the tumour—none proved mortal. We have thus endeavoured to afford a circumstantial account of this singular disease, as it evinced itself during the periods referred to.

* Vide case referred to page 416.

The paper has been extended to greater length than was at first contemplated, but yet various considerations might be urged from a further inspection of all its anomalies and different results. What has been submitted, however, it is hoped will not be unacceptable to the medical reader. He has the satisfaction of knowing they are facts—and facts, when judiciously arranged without ambiguity, and without reserve, constitute the safest foundations in theory, and the surest guides in practice.

*A Memoir on Certain Affections of the Lymphatic System, and on the advantages of treating them with Antiphlogistic means. By T. I. LASSERRE, M. D. of Domme.**

Je ne caresse point les opinions; Je cherche la vérité.

Thomas, Eloge De Descartes.

THE slightly marked characters of the symptoms which characterize lymphatic affections; the slowness with which they progress through their different stages; the inefficacy of the greater part of the means which have been employed for their removal; the extensive morbid alterations, and disorganization of texture which they sometimes exhibit; the different textures that are liable to their ravages; the little pain which sometimes attends even some of the worst forms of these diseases, have all in short, led our predecessors to attribute their origin and progress to some particular vice or vices, which seizing on the animal economy, tended to its destruction. Hence, has arisen the notion of overcoming these diseases by the employment of specifics, if the various and contradictory means that have been resorted to, deserve this appellation, and whose number and variety attest equally to the zeal with which physicians have pursued this

* From the Journal Universel.

subject, and the great obscurity in which the diseases of the lymphatic system have remained buried. At the conclusion of the eighteenth and beginning of the nineteenth century, appeared a set of writers, at the head of whom may be placed the immortal author of the *Anatomie Générale*, who inculcated the necessity of re-modelling medical science; of commencing anew from its first elements; if we would give to it that truth and stability, which should rank it, as well by its utility as its importance, among the first of the experimental sciences. The pupils and contemporaries of Bichat felt the importance of this truth, and laboured at its accomplishment; and in our days has appeared the physiologo-pathological doctrine of Broussais with its important consequences.

I shall endeavour to submit the subject of this memoir to the principles of this doctrine. I deem this labour the more important, as the diseases of the lymphatic system constitute one of the most difficult and obscure points in medicine.

I. CANCER.—In the month of June, 1819, I published in the *Journal Universel*, (tome XIV. p. 289,) an article on cancer, which has been favourably received by the public; and I then promised to give at some future period, the result of two cases of the disease, which I then had under treatment; the one a supposed case of cancer of the pylorus; the other a cancerous affection of the *intestinum rectum*.* I have delayed to this time the performance of this duty, in order that reflection might enable me to make such deductions as the case would warrant; in the hope that they might be of some utility in elucidating the nature of these affections. A mere relation of cases appears to me to be lit-

* I am not able to give the result of this case, as the patient remained a very short time under my care, and died in a distant place, after months of extreme misery.

tle calculated to advance the progress of science. It is only, by comparing together several analogous series, that we are enabled to receive from them any solid instruction.

Case 1st.—A female aged 42 years, consulted me on the nature of her ailments in the latter part of the month of April, 1819. She complained of a sense of weight in the epigastric region after eating, which had existed for six weeks: she was troubled with borborygmy with frequent vomiting, especially when she made use of farinaceous food, and took more wine than usual. Her husband assured me, that she had always been very temperate, never addicted to intoxication; that she had never been much unwell; her severest indispositions had been during child-bed confinements, which had always passed without any accidents. The tongue was clean but much thicker than natural, so that she complained of its filling her mouth, and impeding in some degree the swallowing of fluids. The tongue was not redder than it usually is, but the papillæ were very much developed; thirst, natural; she complained of soreness on pressure, near the umbilicus, especially towards the right side; had been habitually costive since the commencement of her disease: she had besides, various spasmodic symptoms, as cramps of the fingers, a sensation of a ball passing from her stomach to the throat, with difficult deglutition. She never had any pain in the region of her stomach.

I considered the affection to be spasmodic, arising from increased sensibility of the uterine system, for her catamenia had not appeared for three months. I prescribed the use of baths, lavements, a bleeding from the arm, and the daily use of an infusion of camomile flowers and orange leaves, with the addition of a few drops of sulphuric ether. Fifteen days after, I found the symptoms aggravated; the stomach now rejected every kind of food in half an hour after taking it; the point of the tongue became very red: there was consi-

derable thirst, and she complained of severe pain in the spinal cord.* The ingesta were vomited up scarcely altered, but what was afterwards thrown up, was blackish and glaucous. Lavements did not procure any evacuation of any fæcal matter, and the emaciation had become very great. I now saw the error of my first diagnostic, and on examining the epigastric region, I found it more sensible to the touch than before; the liver also appeared to have increased in size, for I felt its anterior and inferior edge, nearly three lines below the false ribs. I discovered in the pyloric region, a tumour tender to the touch, of the size of a large almond; the stomach appeared to be empty.

Twelve leeches were in my presence applied, over the pyloric region, which after the hemorrhage had ceased, was covered with a large cicuta plaister. I recommended the application of the same number of leeches every third day, and to continue the plaister; I allowed the patient for nourishment, eight ounces of ass's milk daily, and to take at night, an anodyne composed of twelve drops of laudanum and three ounces of lettuce water. Nine days after, I found the epigastric region much less tender to the touch, and the edge of the liver could now no longer be felt below the ribs. The tumour of the pylorus appeared to be in the same state as when last examined, but the vomitings had greatly diminished, and the fluid rejected was not as dark coloured as formerly. Continue the treatment; the twelve ounces of milk to be taken in four doses.

By the twentieth day from the first application of the leech-

* I had recourse, for the removal of this pain, to the employment of acupuncture, a remedy which notwithstanding the authority of Vicq d'Azyr, Berlioz, and Haime, had appeared to me puerile and of little importance; and I was not a little astonished, to find the introduction of a needle into the integuments of the back, calm suddenly the excessive pain which had tortured the patient. I have since practised this simple operation in a great number of cases, attended with different kinds of pain, with varied, but often surprising success.

es, the vomiting had entirely ceased ; the countenance of the patient exhibited signs of returning health ; the stools became more natural ; the pulse less febrile, and the pyloric tumour sensibly diminished in size. The same treatment was continued.

On the twenty-seventh day, I was obliged to suspend the application of the leeches, on account of the inflammation of the integuments, occasioned by the bites. A lintseed cataplasm was applied over the parts, instead of the cicuta plaster. The patient had a slight menstrual discharge, and as she expressed a wish for more aliment, I allowed four spoonfuls of rice to be boiled in milk, and taken in two portions. On the thirty-third day I found her so far improved, that I discontinued the application of the leeches and the use of the anodyne, and allowed a moderate use of wine.

By the fortieth day the convalescence was well established. Since that time she has gradually increased her nourishments, and she remains to this time perfectly cured of her disease ; she has totally abandoned the use of wine and coffee. I give this case rather with a view to render physicians more reserved in their prognostics of such alarming cases, than as an undoubted case of cancer of the pylorus. Besides, the case shows us the rapid progress, the latent phlegmasia of the stomach made, under the treatment that I in the first instance instituted ; and the antiphlogistic treatment afterwards adopted, was so evidently advantageous, that every unprejudiced physician would not hesitate in a parallel case to have recourse to the same means. It is thus that theory becomes a sure guide in practice, and by adopting the old maxim, "*A juvantibus et lædentibus fit indicatio*," it is easier than one may at first imagine, to avoid error and obviate the consequences of previous mistake. I have inserted this case in the present memoir, which I expressly write to exhibit my views on diseases of the lymphatic system, not as an instance of true cancer ; for I believe, that

strictly speaking, the word has really little to do with pathology, but only as a variety of chronic phlegmasia of the mucous membrane of the stomach. I believe indeed, that in most chronic affections the lymphatic system is chiefly concerned; and perhaps in a majority of them, it is this system which is alone or primitively affected, especially when the disease has not commenced with an acute stage. Not having yet had a sufficient number of facts to confirm this conjecture, I wait further experience to corroborate or disprove an opinion, which I on the present occasion, merely advance in order to call the attention of others to this important subject.

Second Case.—A young man, aged 19 years, had an ulcer of several lines in extent, on the cartilaginous border of the inner angle of the inferior lid of the left eye, which had long remained stationary. In the year 1820 he received a fall, in which he struck the affected eye against a piece of wood, which soon occasioned a rapid augmentation of the disease. He consulted me in the month of August last. At that time there distilled from the ulcer a viscid humour, which concreted on its surface, and formed a yellow inodorous scab of considerable thickness, and of remarkable hardness. On removing this scab, the ulcer was found red, excavated, and covered with small granulations with whitish points. It was attended with a slight itching sensation, like to the crawling of insects on the skin; the conjunctiva of the ball entirely surrounding the transparent cornea, and that which covered the affected lid was greatly injected with blood. In the first instance, I applied to the ulcer the arsenical paste of Professor Dubois, taking care to defend the globe of the eye from its action, by the interposition of a layer of sheet lead shaped to the part. The eschar was large and deep, so that I judged the whole of the disease to be removed; but I was deceived: on its separating, I found the same kind of scab reforming, and the ulcer in place of cicatrizing became more

extensive, attended with the same sensation of itching as before.

A second application of the same caustic was attended with no better effect, and the augmented size of the ulcer after each trial, made me regret having employed it; but my former frequent success justified its use, and I could not account for its failure in this instance.

I now changed my plan of treatment, but with little hopes of using any thing with much success; I applied a cold carrot cataplasm, with a small addition of tincture of opium, with the view to allay the irritability of the vessels of the part. This was attended with but little advantage; it seemed to diminish the extent of the ulcer, but did not otherwise alter its aspect.

The success I had formerly obtained in different chronic affections of the glands and membranes, from the employment of local bloodletting, determined me to resort to it on the present occasion. Four leeches were applied under the inferior eye-lid, about an inch from the ciliary border; this quickly diminished the redness of the conjunctiva, and the secretion of the concrete matter, of which I have before spoken. Three days after, I repeated the same number of leeches, which reduced the conjunctiva to its natural condition; the ulcer also became pale, its border sunken and shining, with an appearance of commencing cicatrization.

Three days after, a third application of leeches was made, which produced evident good effects, for the ulcer now rapidly cicatrized. Five days after their employment for the fourth time, and by the fifteenth day from the commencement of their use, the ulcer had diminished at least three fourths in size.

I then asked myself this question: did the cicatrization with the arsenical paste so modify the disease, that merely by disgorging the sanguineous vessels of the part, the ulcer spontaneously healed? In order to decide this pathological

question, I discontinued my treatment and abandoned the disease to its natural tendency ; the ulcer still continued to diminish during seven days, but always less and less, until the eighth and ninth day, when its cicatrizing process was entirely arrested ; by the twelfth day, the ulcer had acquired a greater degree of redness ; by the fifteenth, complained again of the itching sensation ; by the twentieth, erosion of the edges of the ulcer commenced, which was very evident by the twenty-third day, and I now hastened to return to the employment of leeches. Their effects were equally beneficial with their first trial, so that five applications of them sufficed to heal the ulcer completely. Lest the disease should re-appear, I recommended the occasional application of leeches for some time, which was complied with.

I deduce from this case the following principles : That the employment of local blood-letting is of greater efficacy in the treatment of cancerous affections of the skin, than the most vaunted remedies for this affection. That it should be repeated until the lymphatic circulation which constitutes the disease has entirely ceased, if we would guard the patient against a return of the disease. This case, together with those I have formerly given, and those inserted in the *Journal Universel* for January, 1820, appear to me to be of sufficient interest, to excite the attention of every physician who desires to improve the treatment of a disease so formidable, and frequently fatal.

II. HERPES.—It may, perhaps, appear strange to many, that I should expect to attract the attention of physicians to my views of herpetic affections, after the many faithful descriptions of the disease which we already possess, especially after the subject has been so ably treated by Dr. Alibert, in his splendid work on Cutaneous Diseases. But, I believe its etiology has not been well understood, and that a more correct knowledge of its seat and nature, will necessarily lead to an improved method of treatment. With all that

circumspection which my limited experience demands, I will endeavour to exhibit my views on this subject.

It certainly is not philosophical to give different names to a disease according as it shall affect different organs, when the same disease situated in a particular part shall exhibit successively, all these varied forms in running through its different stages. But it is not my object at present, to treat of Nosography,—my aim is practical : and theoretical discussions detain me no farther, than as they tend to enlighten Therapeutics.

Case 3d.—A girl, aged 20 years, of brown complexion, whose catamenia had always been regular, had been affected for many years with an herpetic eruption, occupying all the nose. It was in the first instance furfuraceous or scabby ; but it afterwards became covered with a yellow incrustation, accompanied with excessive itching. By the month of April, 1820, the nose had become swollen, very red, and painful. The patient complained of severe lancinating pains through the part from time to time ; and the upper lip was swollen and sore. The conjunctiva of both eyes was suffused with blood, and very irritable, so that the admission of the least light was painful and insupportable. The pituitary membrane appeared to be healthy and the respiration natural. A great variety of remedies had been resorted to ; such as, warm bathing, sulphureous baths, decoctions of *solanum dulcamara*, *viola tricolor*, *rumex aquaticus*, *scabiosa arvensis*, *arctium lappa*, and *menyanthes trifoliata*, together with blisters and caustics to the neck and arms, the external and internal use of Barége water, purgatives, but without any advantage ; the disease in place of diminishing became worse, and appeared to have assumed a more malignant character : for an ulcer had now appeared on the tip of the nose and left ala, of a bad character, with reverted edges, and discharging a fœtid ill conditioned pus. The mother and child despaired of relief. My first care

was to abate the inflammation of the part, for which purpose, I directed the patient to have two warm baths daily; to live on low diet, taking only water for drink, and to apply to the disease a cataplasm, composed of lintseed, carrot pulp, and the leaves of the solanum nigrum. In three days I found this plan of treatment to have diminished the pain, but the swelling and redness remained the same, and I directed the application of two leeches to the upper lip, one to each ala of the nose, and the cold cataplasms to be continued. On the seventh day, I found the disease somewhat relieved.—Continued the treatment. Tenth day, supuration much lessened; the edges of the ulcer less reverted and red. Fifteenth day, the nose and face had lost that hideous appearance which it had heretofore borne, the eyes nearly natural, the nose greatly lessened in volume, and the ulcer commences cicatrizing, especially at its inferior part.—Let the treatment be continued. Twenty-first day, the nose has assumed its natural size, the ulcer heals rapidly, the eyes perfectly recovered, and the upper lip perfectly free from disease. The same plan of treatment was continued to the forty-second day, at which time there remained no other trace of the affection but the cicatrix, which was very unseemly; for the erosion had destroyed so much of the cellular tissue, that the skin adhered directly to the cartilage of the nose, which produced irregular depressions and a disagreeable appearance.

I might here remark on the pretended transformation of one kind of herpes into another; but it is now acknowledged that these pretended varieties, are nothing more than the different degrees of the same affection, resulting from the variety of structure of the different parts of the same organ, suffering from irritation of its lymphatic vessels. As to the essentially debilitating nature of herpetic affections, that I shall not attempt in this place to

controvert. There are some things so self-evident and clear, that they require no further refutation.

If we examine candidly and void of all prejudice, into the cause of the degeneration and aggravation of a great number of cutaneous affections, particularly of herpes, corroding ulcers, and cancerous affections, we shall be convinced that it arises from the corrosive and irritating agents which are applied to these affections in the first instance. It is not merely in affections where the causes are more or less unknown, as herpes, particular eruptions of the face, &c. that we can show this change of herpetic vice into a cancerous one; but shall detail an instance in which a cancerous degeneration ensued in a healthy individual, from long maintaining a vesicated part discharging, by means of irritating applications.

Case 4.—A child aged 12 years, of rickety habits, was affected with tertian fever complicated with inflammation of the stomach, for which the Peruvian bark was employed without success. It tended still further to aggravate the febrile paroxysms and gastritis, so that both the physicians and parents judged at the time I was called in consultation, that the disease would prove fatal. I advised the bark to be discontinued, and in place of it, to administer diluent mucilaginous drinks, and to apply a blister between the scapulæ, as the part whence the rigors commenced. By this means the fever was arrested, and I discontinued my visits. In two months after I was again called, and found the child moribund.

I was informed that the fever had not appeared since the application of the blister; but to guard against a relapse, the blistered part had ever since been kept discharging, by the application of basilicon ointment, sharpened by the addition of a little powdered cantharides. That within three weeks, the ulcer had enlarged and become very painful—The child had lost its appetite and become so enfeebled, that its life appeared in hazard.

I examined the blistered part, and found the ulcer to occupy four times its original extent; with its border irregular, swollen, and reverted; its surface of a pale red, uneven, and so exquisitely sensible, as not to support the application of compresses, moistened with mucilage. There distilled from the surface a vast quantity of thin serous fœtid pus. The child was greatly emaciated, with anasarcaous extremities and was rapidly wasting with hectic fever and continued pain. It died in five days after. Similar instances have no doubt occurred to other practitioners, and I abstain from making such observations on the case as it naturally suggests. Had the ulcer become a corroding herpes,—a cancer? I cannot say, for I attach little importance to these appellations; but what appears to me more evident, is, that the irritation had passed from the sanguineous vessels of the skin to the lymphatic vessels,* and when the lymphatic system becomes affected, the disease assumes the ordinary course of these affections.

I once witnessed the appearance of a circumscribed furfuraceous herpes, in consequence of the application of a blister to the leg of a female, which was cured by the application of an ointment of the sulphuret of potash. This woman had never before had any herpetic affection.

It is truly astonishing to find physicians forbidding patients touching herpetic sores of the face, least they should irritate them, and yet curing the disease by tonics and the application of the most irritating substances. Thus, facts were better observed than the theory which directed them, and if a cure is sometimes effected by these means, it is only by playing *à quitte ou double*.

* I believe that the particular condition of the lymphatic system in rickets and scrofula, predispose to similar degenerations. The very great irritability of the lymphatic vessels in this case, seems to render my opinion, if not certain, at least very probable.

Case 5.—An unmarried female, aged 32 years, of brown complexion, had been affected for a long time with an indolent swelling of one of the maxillary glands, which had at length disappeared after the successive application of various resolvent plaisters; but in a few weeks after, a scabby herpetic eruption attacked the nasal passages, for which she came to consult me in the month of June, 1819.

I prescribed warm bathing, diluent and mucilaginous drinks, a blister to the arm, several mercurial purgatives, a light diet, and a table spoonful night and morning of a syrup composed of a decoction of the *solanum dulcamara*, with a drachm of the Sulphate of potass in each pound of the syrup. This plan of treatment was pursued rigorously for six months, but without the least benefit.

By the month of January, 1820, the sore had become swollen and painful, and the pituitary membrane so much swollen and covered with crustaceous matter, that respiration was totally obstructed through the nasal passages. I now had recourse to local bleeding, by applying leeches to the upper lip; and at the same time I caused the patient to snuff up several ounces a day, of a decoction of the dried plant of the *Solanum nigrum*. Eight applications of leeches were made in the course of twenty-three days, at the end of which time the disease was entirely cured, and the patient has ever since enjoyed the best health.

Many cases occurring in my daily practice, would not fail, if I thought necessary to introduce them here, to prove incontestably, that anti-phlogistics are the very best means of overcoming chronic irritations of the lymphatic system; as well as to establish the correctness of the reasonings which I have ventured, on the principles of the causes and treatment of these affections.

III. SCROFULA.—What numbers of physicians have employed their learning and ingenuity, in investigating the cause and character of scrofulous disease! From Aretæus,

Rosa, and Chappot, who in his *Système de la nature du vice scrofuleux*, supposed it to arise from an æriform fluid, diffused through the fluids of the system, down to Chambon and Bordeu, who attributed it to a peculiar acid spread in the atmosphere; Letual, who considered the scrofulous vice to be secreted by the glands, and Baumes, whose brilliant imagination and vast erudition are displayed in a work on this subject, which is equally valuable for its correct delineations and practical views; together with a crowd of other physicians, not less distinguished for their intelligence, who have made ineffectual efforts to dissipate the obscurity that has so long enveloped this deplorable malady. What then is this barrier, which a thousand years of observation and reflection has not been able to remove, and which has been accomplished in our days by the aid of physiological medicine? As long as physicians continue to look for the cause of disease in the humoral pathology, medicine will remain in its infancy, deprived of that éclat which its utility justly claims for it; for to act thus, is to pass by the simple phenomena of nature, and seek the cause of disease in some abstract and undefinable *vice*. Broussais, by attributing scrofula to over-activity, whether natural or acquired, of the lymphatic system, has advanced our knowledge. Already many of his fellow-practitioners are convinced of the justness of his views, and succeed in overcoming in a few weeks, a disease which they had formerly treated for years without success. This new view of scrofula has lately become more extensively diffused, and multiplied facts begin to realize the brilliant hopes of the Parisian Professors. I hope the cases which I shall here offer, will not be deemed superfluous.

Case 6.—A girl aged 15 years, of a fair and florid complexion and lame, was brought to me by her parents, in the year 1819, on account of several glandular tumours situated on the left side of the neck, which extended from behind the ear quite to the clavicle. Three of them had attained

the size of a poulet's egg. She had been affected for several months past with inflammation of the eyes on each return of her menstrual discharges. The upper lip and alæ of the nose, were considerably tumefied. The cervical tumours were indolent and without pain—the eyes alone were complained of. I was particularly acquainted with her parents, and believe that they had been exempt from any disease of this character for many generations. I judged the disease to be scrofula, and commenced the remedies usually employed in this affection. I directed a decoction of guaiacum, saponaria and winter's bark, with an addition of some syrup of cinchona, and a few drops of the solution of the muriate of barytes in a little sweetened water, to be taken each morning fasting.—Cold bathings, mercurial purges, oxyde of antimony, preparations of iron, cicuta, phellandrium, aquaticum, mercurial and hemlock plaisters, and dry frictions, were all successively resorted to, and yet the disease continued to progress, and some of the glands showed evident signs of commencing suppuration.

Finding that my efforts to overcome the disease were not attended with any benefit, I determined to abandon the tonic plan of treatment, and adopt an opposite course. I applied four leeches on each of the three largest tumours, and after the cessation of the bleeding from the punctures, I covered the part with a mercurial hemlock plaister, and in order to maintain an uniform heat, I placed over that, a piece of fur skin. The warm bath was substituted for the cold, the use of wine forbidden, and barley water acidulated with tartaric acid, given for common drink.* I gradually diminished the quantity of aliments to the point of producing

* It is only under particular circumstances, for example, when the over action of the lymphatic vessels is accompanied with general debility that I believe tonics are admissible, and that in such cases, every judicious physician would employ them in conjunction with local bleeding.

some hunger. Every fourth day, the plaister was removed and the leeches re-applied, excepting during the period of the menses.

On the twentieth day from the commencement of this plan of treatment, I had the satisfaction of finding the largest tumours sensibly diminished in size. The child had become emaciated. I now added mercurial frictions by rubbing in mercurial ointment on the arms, and a few grains of calomel on the gums, and as the upper lip and alæ of the nose continued swollen, and the ophthalmia still persisted to the same degree, I directed two leeches to the upper lip every fourth day, so that now leeches were applied every second day.—Of the first plan of treatment, the mercurial purges alone were retained.

The conjunctiva and pituitary membranes soon regained their healthy state, and in forty days from the commencement of the antiphlogistic plan, the disease was perfectly cured, and the girl in good health, except that she was much emaciated, which was soon obviated by a gradual return to a better diet.

I shall limit myself at present to give one other case, chosen from several I have recorded, and I hope at some future day to return to this important and interesting subject.

Case 7.—A female aged 38 years, of fair complexion, and the mother of three children, had several large glandular tumours on each side of the neck. They had at different periods of her life, especially on the first appearance of her menses, been affected with darting pain, and were at those times visibly increased in volume. She had been under treatment for many years, and had received the advice of several very distinguished physicians, but without having obtained any relief of her disease.

In the month of January, 1820, she was delivered of her third child, which was placed at nurse. Soon after the disappearance of her milk, the tumours of the neck became more

swollen and painful, two of which suppurated and opened. I found them in that state the ensuing March, and convinced by previous experience of the efficacy of local bleeding in this disease, and the total insufficiency of the ordinary method of treatment, I desired a consultation in which I advised the frequent application of leeches to the tumours and near the openings of the abscesses ; also, warm bathing, the use of Belloste's purgative pills every eight days, together with the daily use of refrigerant drinks, milk, &c. with low diet, and a plaister of cicuta and opium to the tumours in the intervals of the leeching.

In one month after instituting this course of treatment, I found a greater alleviation of the disease than I had any right to expect. One abscess was entirely closed, and the other nearly so—it now only distilled a small quantity of laudable pus, instead of the great quantity of serous matter mixed with flakey albumen, as was formerly the case.

The other tumours were now diminished to a small volume, void of pain, and giving no impediment to the motions of the head. The plan of treatment was strictly adhered to. The patient solicited more nourishment, but I impressed on her the importance of abstinence and only indulged her cravings partially.

In forty days after my second visit, I made a third, and found the patient cured. There remained in place of the tumours only small glandular points, and the cicatrices of the abscesses. There was no return of her disease to the month of April, 1821, when she fell a victim to an actual pneumonia.

These two cases, I believe, are sufficient to show the advantages to be derived from antiphlogistic remedies in a disease which has long been accounted asthenic.

It is not my intention at this time to enter into an investigation of the cause of the general debility which sometimes accompanies this disease—it is sufficient for me to show,

that over activity of the lymphatic system, either natural or acquired, is the cause of the disease itself.

This view of the disease explains clearly why these affections should so frequently degenerate into a cancerous character, from being a long time treated by irritating substances. The books on scrofula are filled with such cases, and if we could read them without being beguiled by previous notions of *scrofulous vice* and *cancerous vice*, and scrutinize these transmutations, their cause and character, they would confirm the doctrine here inculcated. To act thus, would be to connect physiology with pathology, a signal service which Broussais has rendered to science and to humanity.

There is another disease which sometimes assumes the cancerous character, but which I do not know as having been considered cancerous: I mean the sequela of chronic inflammation of the deep seated parts of the lymphatic system, usually denominated white swellings, or fungous tumours of the joints. It is impossible to compare the morbid appearances induced in these affections with those of cancers of other parts, without being struck with their similiarity; which is as exact as the difference of structure of the parts affected, or the symptoms and progress of the respective diseases could possibly admit. Can we not also say as much of osteo-sarcoma? Protracted irritation of a particular part, I regard in every instance as the true cause of cancerous disease. Not that violent and energetic irritation which produces gangrene, or intense inflammation in textures highly sanguine; but that low degree of irritation induced by local agents, or sympathetic action which subsists for a long time, and causes but feeble reaction. The predisposing condition, is a particular state of the lymphatic tissue, and not a vitiation of the fluids it secretes. In short, in the present state of medical science, I know and can acknowledge no other cancerous vice than that of irritation.

What frequently occurs in many nasal and uterine polypi

of the mucous membranes, particularly those called *fibrous*, should long ago have refuted the idea of this pretended *virus*, as the cause of their developement. Every well informed practitioner knows, that the frequently repeated irritations induced by attempts to tear them away, will often cause them to assume the cancerous condition. Why then should we persist in assigning a virulent origin to a disease we can produce at pleasure? Is it not the same with steatomatous tumours? "When *fungous excrescences of the dura mater*" says M. Cruveilhier, "extend towards the exterior, they corrode and wear away the bones; and being continually irritated by the osseous inequalities, they become excessively painful, and degenerate into a cancerous condition." Hemorrhoidal tumours are very liable to become cancerous, which arises, no doubt, from their being continually irritated by the passage of fecal matters. If we followed up this investigation into the different tissues of the system, we should discover in each case the influence of particular irritations. When once these data are admitted as affording a satisfactory solution of the immediate cause of cancer, it will be easy to disentangle the perplexities of lymphatic diseases in general; and particularly of cancerous affections, which are only one of the forms of these diseases. If in despite of the daily advances of medicine by means of morbid anatomy, physicians still continue to talk of the *virus* of disease, I must for one say, such virus is entirely unknown to me; that its presence has never been demonstrated; that it is not necessary to explain any phenomena I am acquainted with; and of course, I must refuse to admit its hidden agency, until its existence shall be proved; and in preference, continue to explain the production of morbid phenomena, on natural and evident causes. The era of the study of occult causes has gone by; and every theory must now be rejected, which is not based on positive and undeniable fact; yet it would puzzle the supporters of the humoral pathology, to show such as the grounds of their conviction.

REVIEW.



A Treatise on Acupuncturation ; being a description of a surgical operation originally peculiar to the Japanese and Chinese, and by them denominated ZIN-KING, now introduced into European practice, with directions for its performance, and cases illustrating its success. By JAMES MORRIS CHURCHILL, Member of the Royal College of Surgeons, London, 8vo. p. 86, London.

DID we conceive it our duty to present our readers with an account of every new infallible, or ingenious device for the alleviation of disease, that the wit, the whim, or wonder working talent of the numerous contributors of the present age of improvement and novelty, have judged worthy of claiming the notice and approbation of practitioners ; we should, e'er this, have given some account of Acupuncturation and its surprising powers ; but we reckoned it, erroneously it would seem, a-kin to the famous *tractors*, and remembering how many were gulled by that simple bauble, we felt backward in troubling its Eastern relative, least we might lend ourselves to swell the list, already too numerous, of the credulous and enthusiastic. But we have probably been mistaken—Acupuncturation is likely to become, employed with discrimination and directed with skill, a valuable resource in many cases where our present means fail : at least, such appears to be the opinion inculcated by several late publications on the subject, and we shall endeavour to give our readers such an account of it as shall enable them to judge of its value, and test its efficacy by their own experience.

The operation of Acupuncture has been long known to Europeans as an Asiatic remedy highly esteemed, particularly by the Chinese and Japanese, for the relief of many diseases. It is spoken of by Ten-Rhyne, Bidloo, Kæmpfer, and Vicq-d'Azyr, and recommended by them to favourable notice; but it does not appear that any trial was made of the remedy in Europe until very lately. Several French physicians have employed it pretty extensively, within these few years, and speak in the highest terms of its efficacy. The little tract before us, appears to be a candid and judicious expose of what the Author has been enabled to collect of its employment in the East, and the result of the few trials that have been made with it in England, where it has never been till lately introduced. Mr. Churchill speaks of the remedy with considerable circumspection; he does not even pretend to conjecture its *modus agendi*. He has employed it sufficiently to be convinced, that it often exhibits surprising sanative powers, and that it is really worthy of attracting the attention of physicians; but he does not recommend its employment so extensively as the French physicians, neither does he think with them, that large arteries may be punctured with impunity in this operation; at any rate, he thinks it would be better not to hazard the chance, and recommends the operation to be performed only by persons, whose anatomical skill enables them to avoid such dangers.

The following, extracted from an historical work, is the best account that Mr. C. has met with of the employment of this remedy in the East.—

“The place made choice of for the puncture, is commonly at a middle distance between the navel and the pit of the stomach, but often as much nearer to, or farther from either as the operator, after a due scrutiny, thinks most proper; and in this, and the judging rightly how deep the needle must be thrust below the skin, so as to reach the seat of the morbid matter, and giving it a proper vent, consists the main skill of the artist, and the success of the operation is said to depend. Each row hath its particular name, which carries with it a kind of direction, with regard to the depth

of each puncture, and the distance of the holes from each other, which last, seldom exceeds half an inch in grown persons, in the perpendicular rows, though something more in those which are made across the body, thus,

The needles which perform the operation are made, as was hinted at first, either of the finest gold, or silver, and without the least dross or alloy. They must be exquisitely slender, finely polished, and carry a curious point, and with some degree of hardness, which is given by the maker by tempering, and not by any mixture, in order to facilitate their entrance, and penetrating the skin. But, though the country abounds with expert artists, able to make them in the highest perfection, yet none are allowed, but such as are licensed by the emperor.

“ These needles are of two sorts with respect to their structure, as well as materials ; the one, either of gold or silver indifferently, and about four inches long, very slender, and ending in a sharp point, and have at the other end a small twisted handle, which serves to turn them round with the extremity of the middle finger and thumb, in order to sink them into the flesh with greater ease and safety ; the other is chiefly of silver, and much like the first in length and shape, but exceedingly small towards the point, with a short thick handle, channelled for the same end of turning them about, and to prevent their going in too deep ; and for the same reason, some of them are cased in a kind of copper tube, of the bigness of a goose quill, which serves as a sort of guage, and lets the point in, just so far as the operator hath determined it. The best sort of needles are carefully kept in a case made of bull’s horn, lined with some soft downy stuff. This case is shaped somewhat like a hammer, having on the striking side a piece of lead, to give it a sufficient weight, and on the outside a compressed round piece of leather to prevent a recoil, and with this they strike the needle through the thickness of the skin ; after which they keep turning the handle about with the hand, till it is sunk to the depth they design it, that is, till it is thought to have reached the seat of the morbid virus, which in grown persons is seldom less than half, or more than a whole inch : this done, he draws it out, and compresses the part, in order to force the morbid vapour or spirit out.

“ The directions and nice rules for the performing of this curious operation are many, and require great skill and attention in the operator ; and when duly performed, may be of excellent use, not only against the excruciating distemper, called Senki, but against many other topical ones, which are most commonly cured by the Indian Moxa, and other caustics. On the other hand, these last are often tried against the distemper above mentioned, by ap-

plying the caustic to the belly, on each side of the navel, and about two inches from it, but mostly without any success, it being very unlikely that such an application should reach the seat of the distemper; whereas, the benefit which has accrued from the *acupuncture*, in that one disease, hath encouraged others to apply it indifferently to other parts of the body, where the moxa is used, and by a due care and precaution not to prick any nerves, tendons, or other considerable blood vessels, have cured their patients by it, without putting them to the excruciating torture which attends that of the Moxa, or other caustics."

From the little we have learned of the practice of this operation amongst the Asiatics, it would seem, that it was chiefly diseases of the abdominal cavity and viscera, which afforded opportunities for its performance, such as Colic, Tympany, &c. It is not in such diseases, however, that I have any experience of its use, but it is questionable, whether it might not be beneficial, particularly in the latter, and I would beg to recommend it as a matter of interesting experiment, to be tried in this malady; such an opportunity, should it fall in my own practice, I shall take advantage of.

The Indians, however, do not confine their practice of Acupuncturation (or Zin-king, as they call it) to diseases of this kind. They puncture the head in all cases of Cephalalgia, in Comatose affections, Ophthalmia, &c. They puncture the chest, back, and abdomen, not only to relieve pain of those parts, but as a cure for Dysentery, Anorexia, Hysteria, Cholera Morbus, Iliac Passion, &c. Local diseases of the muscular and fibrous structures of the body, also often afford them occasions for its performance; and it is for diseases of this class only, that I have hitherto practised it, and for which I would expressly recommend it.

Mr. Churchill's experience of the effects of this remedy, is chiefly confined to its employment in rheumatic affections. He argues with Dr. Haime, that it is best suited to those cases which are not attended with much inflammatory action, and attests to its power in many instances, of instantaneously and completely removing these forms of disease. He records several cases of recovery that occurred in his own practice, two of which we will insert—the others are equally remarkable.

Case I.—GEORGE McLAUGHLAN, about 30 years of age, a Bricklayer by employment, came to my house in November last, supporting himself by a stick in one hand, and resting the other against the wall, as he proceeded. The body was bent at nearly right an-

gles with the thighs, and his countenance indicated acute suffering. He had been attacked, he said, three days before, with darting excruciating pains in the loins and hips; every motion of the body produced an acute spasmodic pain, resembling an electric shock; and the attempt to raise the body to an upright position was attended by such insupportable agony, as obliged him to continue in this state of flexion rather than encounter it by altering his position. There was no more constitutional disturbance than was to be expected from three days and nights of constant pain; the pulse was a little quickened, and the tongue white, but I attributed this derangement to the irritation set up by the pain and loss of rest. I directed him to place himself across a chair for support during the operation, and I immediately introduced a needle of an inch and a half in length into the lumbar mass on the right side of the spine; in two minutes time I observed that he seemed to rest the weight of his body more on his limbs, and in the next instant, without any enquiry being made, he observed, that he felt his limbs stronger from the "pain having left his hips." He next plainly indicated that the disease was lessened, by raising his body; from which he only desisted, by being desired to remain at rest, through fear of the needle being broken. The instrument having remained in its place about six minutes, the patient declared he felt no pain, and could, if he were permitted, raise himself upright; it was then withdrawn; the man arose, adjusted his dress, expressed his astonishment and delight at the sudden removal of his disease, and having made the most grateful acknowledgments, left the house with a facility as though he had never been afflicted. The relief was no doubt permanent, as he did not return, which he would most probably have done, had he suffered a relapse.

Case III.—ELIZABETH JACKS, a married woman, aged 44 years, was admitted into one of the public hospitals of London, in the year 1817, for an enlarged Bursa situated under the Rectus Femoris muscle. Soon after her admission she was attacked with violent pains in the limbs, which continued to affect her with greater or less violence, till the month of October, 1820, when a severe rheumatic state of the back of the head and of the loins supervened; the one preventing flexion of the neck, the other of the back. Her digestion continued unimpaired, the pulse about its natural standard, without hardness or acceleration. Her nights were passed without sleep, and every motion of the body was performed with pain and reluctance. In this state she applied to me, and I gave her antimonials combined with opium, keeping the bowels open with gentle aperients. Under this treatment, she was in some degree relieved, but as she laboured under the impression that nothing could be done to eradicate the disease, she discontinued it after a short time, but in a few days afterwards (Nov. 4th,) Mr.

Carpue was requested to see her ; he prescribed ten grains of Dover's powder, to be taken every night at bed time : this dose she took twice without any benefit. The pains had now entirely left the parts they at first occupied, and had fixed on the intercostal muscles above and below the seventh and eighth ribs on each side of the chest ; whence, to avoid the insupportable anguish occasioned by the action of these muscles in the process of respiration, this function was (or at least appeared to be) wholly supported by the Diaphragm, the abdominal muscles, and the large external muscles of the neck, chest and back. No other force but that of pressure upon the situation corresponding with the interstices of the ribs gave any uneasiness, but on these parts, the slightest pressure produced intolerable pain : this plainly proved that the disease affected the intercostal muscles alone. Peritonæal inflammation ensued, and the suffering which this occasioned, banished for the time, all attention to the original disease ; but no sooner was this removed, (which was effected by the most active means) than the patient found that she was still the victim of an unrelenting malady, which had now pursued her upwards of three years. Acupuncturation now recurred to me as a probable mean of relieving her from her sufferings. I accordingly introduced a needle between the sixth and seventh ribs, and another between the seventh and eighth of the right side ; in two minutes the patient became sensible of relief, and in two or three minutes more, that side of the chest was emancipated from the disease.

The same operation was now performed on the other side, though the good effect was not equally extensive on this as on the right ; yet the patient respired now with so much comparative freedom and ease, that she exclaimed, she should "soon be quite well."—The following day but one, there was a little augmentation of the pain on both sides of the chest, but a single needle introduced into each part, entirely removed it. No return of pain after this time visited the right side, but the left, still continued to be attacked ; until at length the third introduction of the needle, dissipated it permanently, and the patient has since remained free from the disorder. The needles in every instance were suffered to remain in the part about five or six minutes.

The Operation of Acupuncturation described.—The first step necessary to the performance of this operation, is the selection of a proper apparatus. It is not requisite, however, that our needles be either of gold or silver, as those of the Japanese are ; although it is true that the flexibility of these metals prevents the risque of their breaking ; but I have not heard of, or seen, any instance of such an accident with the steel needle, which is the material employed in European practice. It may however be left to the dis-

cretion of the surgeon, whether he uses the former or not ; it is only of consequence, that the extremity should be finely pointed, and preserved so.

Mr. Berlioz uses a steel needle, three inches in length, which has a head given to it of melted sealing wax. This needle is introduced to such a depth as the operator thinks proper, depending on the part in which it is used, as well as the nature of the disease which it is intended to remedy. If it be intended to puncture any of the viscera, such a needle will indeed be wanted ; but it will be seen by the practice of the French physicians, that though they have sometimes thought it right to penetrate the visceral cavities to the whole depth of this needle, yet it is but seldom that more than one inch of it has been sunk into the part. I have not, in my own practice, ventured to use needles of greater length than one inch, and one inch and a half ; and the instrument which I use is an ingenious adaptation of a common sewing needle to an ivory handle, constructed by Mr. Edward Jukes, Surgeon Accoucheur to the Westminster Medical Institution.

Dr. Haime, and I believe the French surgeons who practice acupuncture, use this long needle (three inches) and Mr. Demours, who appears to be a man of considerable mechanical genius, has lately invented a new apparatus for this purpose. An exhausting syringe is fitted to the side of a cupping glass, which can be unscrewed and removed after the exhaustion has been effected by a few strokes of the piston, leaving the glass affixed to the part. From the top of the glass proceeds a hollow staff, in which slides (the tube being air tight) a handle, armed with a three inch needle, which is inserted to any depth the operator chuses.

The theory which Mr. Demours gives in defence of this instrument is, that the sensibility of the part is so much lessened by the congestion occasioned by the suction of the pump, that the instrument passes without producing the least pain, whilst at the same time it penetrates deeper, and more readily, through the tumefaction occasioned by the turgescence of the sanguineous capillaries and lymphatics. These advantages, he says, being only obtained by the operators ability of passing the needle whilst the surface of the body remains in the state of tumefaction, he contends they cannot possibly be derived from the simple process of affixing a common glass by the flame of a taper, as the tumor subsides the instant the glass is removed.

I do not think it, however, a matter of any moment, whether a cupping glass be applied or not ; it may, certainly, lessen the sensibility of the part, and consequently diminish the pain occasioned by the needle ; but this is in general so trifling, that no preparatory steps are required to mitigate it ; in fact, it deserves so little the

name of pain, that the patient is often unconscious of the needle having penetrated.

The Japanese and Chinese drive in the needle by the stroke of a mallet. This instrument, in use amongst the former, is made of ivory, with holes, sunk on its surface in the same manner as a lady's thimble, which prevent the hammer from sliding off when the stroke is given. Such a method is however objectionable, as well from the danger there would be of breaking a needle not possessing flexibility, as from its being more painful to the patient.

The method to be employed is the following :

The handle of the needle being held between the thumb and fore finger, and its point brought into contact with the skin, it is pressed gently, whilst a rotatory motion is given it by the finger and thumb, which gradually insinuates it into the part, and by continuing this rolling, the needle penetrates to any depth with facility and ease. The operator should now and then stop to ask if the patient be relieved ; and the needle should always be allowed to remain five or six minutes before it is withdrawn. This mode of introducing the needle, neither produces pain (or at least very little) to the patient ; nor is productive of Hæmorrhage, which Dr. Haime says arises from the fibres being separated, rather than divided by the passing of the needle ; the former of which (the absence of pain) is a point in its favour, which few surgical operations possess.

It is but rare that I introduce more than one needle at the same time, as a greater number does not appear to be more efficacious than a single one. I, however, depart from this rule (as will be seen from some of the cases) when the pain becomes fugitive from the effects of the instrument ; which is a most encouraging symptom. In such circumstances, following the disease by introducing the needles where the pain has removed to, has always proved ultimately successful.

Where also the disease is seated in such several parts, which from their anatomical situation, are known to receive their nerves from distinct or opposite departments of nervous origin ; or if the disease pervades more organs or muscles than one, which are but little connected as to their nervous relations ; then I regulate the number of needles, accordingly as I suppose the several parts may be more or less connected with each other.

The perforation made by a sharp smooth instrument like a needle, is of such a simple nature, that there is little danger of doing any mischief with one of this kind. Dr. Bretonneau, Physician to the "*Hospital General*" of Paris, has made a number of experiments on puppies, the result of which is, that the Cerebrum, the Cerebellum, the Heart, the Lungs, the Stomach, &c. may be penetrated without occasioning the least pain or inconvenience.

In one case, where the heart had been punctured, he afterwards discovered an extravasation of blood into the Pericardium ; and Dr. Haime asserts, that his experiments prove the doctrine of Mons. Beclard, respecting the elasticity of the arterial tunics, which may be punctured with impunity. One case of this nature occurred to Dr. Bretonneau, where a jet of blood followed the puncture of an artery. The hæmorrhage was immediately stopped, simply by pressure upon the opening. Dr. Haime says, that he has often, when performing this operation upon the human subject, thrust the needle to such a depth into the Epigastrium, that the stomach must have been pierced ; but that it was productive of no more inconvenience than the same operation upon the more simple parts of the body. I should, however, contrary to such high testimony, hesitate much to puncture an artery, as an aneurism has been known to result from a small puncture made by an awl, which required the division of the vessel for the cure.

A Treatise on the Nature and Treatment of Scrophula ; describing its connection with Diseases of the Spine, Joints, Eyes, Glands, &c. &c. BY EUSEBIUS ARTHUR LLOYD, *Mem. Roy. Coll. Surg. Lon. &c. &c.* 8vo. pp. 330.—LONDON, 1821.

MR. LLOYD'S book is an attempt to apply Mr. Abernethy's principles on the constitutional origin of local diseases to the nature and treatment of Scrophula. How far these principles, which have been of such signal advantage in the treatment of other diseases, can be applied to Scrophula, will be best determined by clinical observation ; yet we would in the mean time observe, that from all we have been taught of the nature of this disease, and the very feeble power that general remedies in most instances seem to exert over this form of the constitutional derangement, we should not expect, from means so simple, and apparently so little calculated to effect a thorough renovation of habit ; the cure of a disease that has had its thousand specifics in vain. Scrophula is sometimes conjoined with derangements of the digestive organs, which may in these cases

be the pre-disposing or even exciting cause of the disease, when an attention to the primitive affection necessarily becomes the most important part of the treatment. It is in such cases, doubtless, that Mr. Lloyd's views are peculiarly applicable, and his book, we think, is calculated to render a service to the profession, by turning their attention to such complications. For our own part we despair of ever submitting the disease to the controul of mere medical treatment, from an extensive comparative trial, in a large public charity where the disease in its different forms is very prevalent, of the various remedies most in repute, we were led to give a decided preference to a vegetable bitter in combination with an alkali, as occurs in Peyrifle's elixir; which appeared to possess very considerable power over the disease; but on using it under other circumstances, where the patients were deprived of exercise, pure air, nutritious diet, and other attentions to regimen, it proved wholly inadequate, and indeed seemed to produce little or no effect. We find this disease to vary greatly both as it regards its frequency, and malignancy, with climate, local situation, occupation, diet, habit of body, &c. &c. In some countries, a considerable portion of its inhabitants are obnoxious to some of its varied forms, and many of them fall victims to its ravages, as in Great Britain, Germany, and northern countries generally: in others, again, the disease is comparatively rare, chiefly confined to the poor and most wretched part of the population; mild in its character; and when affecting the glands, slow in its progress; finally wearing away, and disappearing in process of time, without the aid of medicinal treatment, as in some of the southern parts of Europe, and the southern states of this country. From all this, we are taught to expect more from the general and extensive operation of regimen, than from the boasted powers of specifics whether alkaline or stimulant, antiscorbutic or attenuant. These facts come in corroboration of the doctrines of the book before us, and merit for them at least, the attention of practitioners.

Mr. Lloyd states in his preface, "that the great object of his work is to show that scrophulous diseases are in general, to be removed by attention to the general health of the patient; and that the disease itself is to be considered the secondary, not the primary object of attention." He believes that it (the disease) arises from the disorder of the general health, particularly from derangement of the digestive organs, induced by improper diet, neglect of the alimentary canal, and other causes calculated to produce such derangement, as exposure to a cold and variable atmosphere without sufficient clothing, &c.; that it is not a disease of a particular system, as the lymphatics, but affects different parts, at the different periods of life, as the eyes, the glands of the neck and mesentery in childhood; and the lungs, the osseous system, and other parts of the body in after age; and that the disposition to the disease is frequently congenital or hereditary, for he has not only met with families, all or most of whom have had the disease in some of its forms, but has met with evident traces of the disease in the lungs of a fœtus, the mother of which had perished with tubercular phthisis.

He has seen the most esteemed specifics fail so frequently, without having produced any amelioration of the disease, that he has no confidence whatever in any of them, and now places his chief dependance on such means, as shall restore the general health and natural functions of the system. To accomplish this, he recommends a constant attention to be paid to the state of the bowels, and to exhibit every night, or every other night, as the case shall require, five grains of the blue pill, or the compound calomel pill, or a small quantity of calomel combined with rhubarb. If these medicines do not evacuate the bowels, some additional purgative medicine, must be given the next morning. The diet of the patient must also be attended to, and particular regard paid to the quantity of food taken, and the regularity of the meals. In general, milk, eggs, arrow root, meat, jellies, &c. are

most suitable to these cases ; and food of difficult digestion and of stimulating properties are to be avoided. If there is a prevalence of acidity in the stomach, it is to be corrected by small quantities of soda or potass, and when there is loss of appetite, with what is called a weak stomach, tonic remedies, as cinchona, steel, and the mineral acids are of the greatest service, but not by possessing any specific power of overcoming scrophulous disease.

Of Scrophulous affection of the Glands —The enlargement of a scrophulous gland, in the early stage of the disease, is owing to thickening of its cellular part, the vessels of the gland, still remaining pervious ; but if the disease be not soon arrested, the whole structure of the gland becomes altered and destroyed, and new matter is gradually deposited, which is in some instances of firm consistence, very much resembling cheese, and of a mottled yellowish white colour ; in other cases again, the gland is converted into a much softer substance, of less uniform appearance, part of it resembling curdy matter, and a part of it still softer, less opaque, of a yellow colour, and frequently mixed with small quantities of pus. Sometimes suppuration only takes place around this newly formed substances of the gland, which after the discharge of the matter is found to occupy the middle of the abscess, resembling thickened cellular substance detached from the sides of the abscess so as to admit a probe to be passed quite around it. Such an abscess is very difficult indeed to heal.

The diagnostic mark of a scrophulous abscess, is the discharge of a whey-like fluid with curdy matter, sometimes even mixed with tolerably good pus.

The lymphatic glands of the neck are very liable to disease, probably from some peculiar susceptibility of them to the disease. It is very common also to have a gland enlarged, and form an abscess about the middle of the tibia ; just behind the inner condyle of the femur ; also just above the

inner condyle of the humerus; on the inside of the ulna, near the olecranon; and above the middle of that bone: above the clavicle too is such an uncommon situation. The glands of the groin are frequently affected. All the other glands of the body are liable to be affected, but not equally so with the lymphatic. The parotid and the prostrate glands are sometimes attacked with the disease, and very rarely the thyroid, whose common enlargement is of another character. Scrophulous abscesses may also form in any part of the body, independently of the glands, when, I think, they suppurate more quickly than when a gland is implicated.

The less that is done for indolent enlargements of this disease the better, the great point is to correct the constitutional derangement. The best local application is a solution of common salt or other cooling lotion, to prevent irritation of the surrounding parts, and in their more advanced stage when inflammation supervenes, local bleeding by leeches and the use of emollient cataplasms, are the best remedies we can have recourse to. In some instances, after the pain and tension have in a good measure subsided, and the tumour is left in an indolent state, it will appear from the feel to contain a small quantity of matter, when the application of a blister over the part kept sore for a few days, will frequently promote the rapid dispersion of the fluid, and even of the whole tumour. Where scrophulous abscesses form in the vicinity of a bone, they should be opened early; but under other circumstances, it is of little or doubtful consequence, whether they be opened or left to open of themselves. When such an abscess bursts or is opened, the aperture gradually enlarges, and forms a scrophulous ulcer, with margins smooth, obtuse, and over-lapping, of a purple colour and rather hard and tumid. The surface of the sore is of a light red colour; the granulations are flabby, indistinct, and of a peculiar aspect; the discharge thin, slightly ropy and copious, with curdy-looking flakes, and the pain is considerable. The lo-

cal applications that agree best with these ulcers, are such as are slightly astringent, as diluted citrine ointment, zinc ointment, &c. These ulcers are chiefly prevented from healing by the over-lapping of their edges, and the enlarged gland at the bottom, to obviate which, it is necessary to apply the kali purum to these parts pretty liberally, so as to produce a plain even surface, when the part will heal like a common ulcer, or wound, and not leave those deep unsightly scars, which are so often the consequence of this disease.

The mammæ of females are subject to scrophula, both before and after the period of menstruation. The disease generally commences in the form of a small moveable lump, which gradually increases in size, coalesces with the surrounding parts, becomes tender, inflames, and forms successive abscesses, which leave small ulcerated openings difficult to heal. Attention to the general health, soothing local applications, local bleeding by leeches, the insertion of a seton or establishing an issue, by enlarging the opening of the abscess with kali purum, according to the particular state of the case, will usually accomplish their cure. In those cases where the whole gland becomes affected, the use of emollient cataplasms becomes indispensably necessary, to which may be added a decoction of hemlock or poppies.

The testicles both in the child and adult are subject to scrophula. The disease most usually commences in the glandular part, which gradually enlarging, gives a fleshy feel, becomes softer than natural, and is attended with little or no pain, or even tenderness to the touch. In some cases there is a deposition of cheesy matter, and the formation of the true scrophulous abscess; in others, the gland after continuing to enlarge for sometime at length begins to diminish in size, and continues to do so until the whole gland totally disappears. The treatment is the same as for scrophula of the other glands: attention to the general health, the employment of leeches to allay irritation, soothing local applica-

tions, as poultices, cooling lotions, supporting the testicles with a suspending bandage, and destroying the indurated unhealthy part of the ulcer by the use of kali purum. By the use of such means, the Author believes, that the great majority of indurated testicles will be found to yield, and supersede the necessity of extirpating them, which he thinks is often unnecessarily resorted to. During his long attendance at St. Bartholomew's hospital, as house surgeon, Mr. Abernethy had occasion to extirpate only one testicle, and that was a case of fungous hæmatodes. The prostrate gland is sometimes affected with scrophula, becoming greatly enlarged, and giving rise to retention of urine, stricture, abscess and sinusses in perineo. The remedies are the same as for scrophula of other glands, conjoined with such means as this particular one shall require.

*“Scrophulous affection of the bones and joints.—*The true scrophulous disease of a bone, I believe, always commences in its cellular, or cancellous structure. At first the vascularity of the bone appears to be simply increased; gradually, however, the whole texture is altered; the earthy matter is absorbed, and the bone becomes softer than in health. Subsequently the natural secretion of the cancellous structure also becomes absorbed, and the cancelli are filled with a yellow caseous matter, or a transparent yellow fluid. Sometimes too, with this cheesy matter there is a whiter and more solid matter deposited in the same bone.

Such is the condition of the bones in what I consider the first stage of scrophulous disease of the joints. How long they may continue in this state, without further mischief taking place, is quite uncertain; but, usually, the next effect that occurs is, that the external parts sympathize with the disease of the bone, and become thickened and swelled by the deposition of a gelatinous fluid into the cellular substance, and upon the tendons and ligaments surrounding the joint. This thickening often goes on to a great extent, and the parts continue in an indolent state for a very long time; but at length the true character of this, the second stage of the disease, is developed, and more active inflammation comes on: the cartilages now ulcerate or are absorbed, the synovial membrane inflames, and matter forms, so that the whole joint becomes included in the disease, and the suppurative or third stage is established.

The cause of the thickening and inflammation, which take place in the soft parts in this disease of the joints, does not seem to be very evident. It is clear to me that they cannot generally arise from any increased vascularity of the bone, for they seldom occur till after the period when the vascularity is preternaturally great. I have examined bones at an early period of the disease, when the vascularity is greatest, without there having been any external thickening, or other sign of disease in the joints to which they have been connected. Indeed, the nature and progress of this morbid affection of the bones appear at once to point out another, and a very different cause.

Scrophula, in whatever structure it arises, at first certainly increases the vascularity of the part affected; yet, subsequently, it not only diminishes it, but, if its progress be not arrested, it completely destroys the natural structure, and substitutes the peculiar matter which has been previously described. In the bones the morbid alteration of structure is precisely the same; and their vascularity, which was at first greater than natural is gradually diminished, till their vitality is sometimes completely destroyed. In the larger bones, from their size, and from only a part of them being affected, and from the progress of this disease being so gradual, that before this state can take place some termination is put to the case, of course this total death of a bone can seldom occur; but in the smaller bones, as those of the metacarpus and fingers, the whole or the half of one of the bones often dies from this disease, and after the formation of abscesses, comes away in one piece, wholly deprived of its earth, and as light as a feather. The heads of the larger bones, however, are in this disease often found in a very similar state, or are what is termed carious.

When I have examined bones at a less advanced period of the disease, when the cancelli have become filled with the cheesy matter, I have always found the vascularity diminished, and generally in proportion to the duration of the disease. Of course the deposit may take place to a greater extent, and yet a considerable degree of vascularity remain; but I am convinced, that as the deposition of the scrophulous matter increases, the vitality of the bone is continually decreasing. The description given by Wiseman of this disease is in its conclusion very correct. He states, "that it gradually rotteth away the interior till the bone becomes a mere shell." There are, however, undoubtedly, as I have described, many intermediate degrees.

I am therefore disposed to believe, that the external affection of the joints, which takes place in these cases, is really produced by the state of the bone which has just been described: that the vascularity of the bone, which was at first greater than natural, being gradually diminished, it becomes a source of irritation to the sur-

rounding parts, as when a bone is dead; yet not in so great a degree: as the vitality of the bone in these cases is not actually destroyed, but only diminished. Notwithstanding, the affection of the external parts may, perhaps, be in some measure owing to the morbid deposit in the cancelli of the bone; but I think it more depends upon the general alteration in the condition of the bone.— If it were attributable to inflammation, propagated from the interior of the bone to the surrounding parts, we ought undoubtedly to find on dissection a corresponding state of the bone, which I am convinced, as I have stated before, is decidedly the reverse of what really occurs, as, when we examine a bone at this period, we most frequently find it of a much paler colour than natural, and its vascularity more or less diminished.

Whether at the commencement of the change which scrophula produces in the bone, or when there is simply increased vascularity; real inflammation is ever excited in the bone itself, and propagated to the contiguous parts, as the cartilage and ligaments, I am not positive; but I am very much inclined to believe that it is. If this should prove to be the case, it is evident that it will sufficiently account for some of those apparently anomalous cases of primary ulceration of the cartilages, in which they are said to be ulcerated without any previous morbid condition of the bone, or of the synovial membrane; as in such cases there would not be found on dissection any particular disease, or morbid deposit in the bones. The progress of the disease in other structures, particularly in the glands, renders this opinion very probable. In the ordinary course of true scrophulous disease of the joints, the ulceration of the cartilages, and the formation of matter in the articular cavity, do not take place till a later period.

The ulceration of the cartilage, however, appears clearly to depend upon the diseased state of the bone, or upon inflammation of the synovial membrane, rather than on any morbid condition of the cartilage itself; at least, I have never been able to detect any positive difference in the cartilages of the different bones of a carpus or tarsus affected with scrophula, though, after ulceration has commenced, and the contiguous bone has been carious, I have thought they have sometimes seemed a little thickened and softened.— When only a small portion of the cartilage has ulcerated, I have seen the adjoining cancelli of the bone apparently empty, and resembling the cancellous structure of a dried bone.

Like all other diseases depending upon a scrophulous diathesis, the scrophulous disease of the bones seldom occurs but in early life; however, like the same affection of other parts, there is no certain period after which it may not occur in persons who have evidently a strong hereditary tendency to it, and who have had scrophulous diseases in various parts of their bodies, at different periods of their lives.

White Swelling.—The first decided symptom we have of this disease going on in the articulating extremities of a bone, is an occasional deep-seated, dull, heavy, pain, unattended by swelling, and not increased by motion; but, if it be the hip, knee, or ankle joint, which is affected, somewhat increased by the compression of long standing or walking; and it seems that it is to take off this pressure that the patient keeps the knee rather bent, and never fully extends it in progression.

This state often continues for many months, but generally the pain gradually increases; and after exercise the joint appears swelled, or fuller than natural; which, however, usually subsides after a night's rest. This temporary fulness is sometimes occasioned by swelling of the external parts, but at other times it seems to be occasioned by an increased secretion from the synovial membrane. At length, however, the soft parts external to the joint permanently swell, but the swelling does not at first affect the whole joint, as in other diseases of these parts. In the knee it often commences on either side, just behind the condyles, so that the joint appears wider, and more spread out than it naturally is, and I have often seen it commence by the swelling of a gland immediately above the inner condyle of the femur. There is, however, no point of the joint at which the swelling may not begin.

The swelling gradually increases and affects the whole joint, not bulging as when the capsule is distended with fluid; is elastic, but at the same time feels so firm that the heads of the bones seem to be enlarged, and have a peculiar rounded appearance; and the skin covering it is tense, smooth and transparent, so that there are frequently several large veins conspicuously visible on its surface. The skin often remains of its natural colour for a very long time, although the enlargement may be very great. In this stage there is always more pain than in the first, but, except occasionally, it is rather a continual uneasiness than actual pain in the part.

As the disease advances in the soft parts, or in the parts secondarily affected, the inflammatory disposition increases, the pain becomes greater, and there is a constant feeling of heat in the joint. The health now suffers from the local irritation, but by no means in so great a degree as when suppuration has actually commenced. At this period it is not uncommon for an abscess to form, from some accidental circumstance in some part of the swelling, for it to burst, and to continue discharging for a short time, and then heal up; and for the parts to remain in the same state as before for months, and I have known it for years, without the formation of any fresh abscesses.

When, however, the third, or suppurative stage is fairly established, it is very common to have successive abscesses form in the parts external to the joint, not communicating with the cavity,

which burst and readily heal, or leave sinuses, which often continue, for a long time, to discharge a sero-purulent matter. The matter from these abscesses sometimes makes its way into the cavity of the joint, or by ulceration to the bone, either above or below it, so that on examination with a probe the bone is found to be bare. In the progress of the case, and, indeed, sometimes at an early period of this stage, the articular cartilages ulcerating, matter forms in the cavity of the joint, and distends the capsule, so that the swelling becomes much larger and softer than it was before, and altered in shape, bulging both above and below the patella.

The skin at this period, if before of its natural colour, becomes of a peculiar purple redness, and will sometimes give way at a prominent part of the swelling, but it oftener happens, that the matter insinuates itself in every direction above and below, and discharges itself at a considerable distance from the joint, forming sinuses, which often continue open, even if the disease terminates favourably, for many months, and even for years. It is common too, for pieces of bone, and of scrophulous matter, to be discharged at different times through these openings.

When the capsule first becomes distended with matter, the pain is much aggravated, and consequently the health is much disordered, so that before and after the bursting of the abscesses, hectic is not an uncommon symptom; but I think it does not so generally or speedily ensue, as when the morbid condition of the joints is produced by common inflammation, or by some other diseases to which the joints are subject.

This disease may, I think, always be distinguished from all other diseases of the joints, by its being attended with less pain in all its stages; and by its existence with a great degree of external swelling, often for a very long time before matter forms in the cavity of the articulation, which is the seat of the disease; and by the swelling being but little diminished by the discharge of matter that may take place. In its first stage, or before the interior of the joint is affected, you may certainly distinguish it from primary ulceration of the cartilages by the pain not being much increased by motion."

The swelling that accompanies this disease is generally produced by the deposition of a gelatinous and serous fluid into the cellular substance and upon the tendons and ligaments of the joint; and not by an expansion of the ends of the bones, as was formerly believed, though the author is convinced from actual inspection that they are in some instances actually expanded by interstitial deposition.

“Treatment.—Scrophulous disease of the joints, like all other scrophulous diseases, depends, as has been already stated, upon a peculiar and disordered state of health which we must of necessity remove before we can expect effectually to cure the local disease.

The local treatment during this state of the health, consequently becomes principally palliative; but as soon as the health is improved we may by local treatment very much assist in the curing of the local disease. As this part of the treatment chiefly consists in avoiding all sources of irritation, and in preventing inflammation; rest must of necessity be a primary object. It therefore becomes of the greatest importance to keep the joint that may be affected in a state of perfect quietude. For this purpose, if it be the shoulder joint, the arm must be supported by a sling, and to prevent any motion by elevation and depression, the sling should be fastened to the patient's side.

When the elbow is the joint that is diseased, simply keeping the arm in a sling is generally sufficient; but even in this case some attention is necessary, as the whole fore-arm should be included in the sling.

When the knee is diseased, it should be kept perfectly straight and steady, either by two short splints, one on either side, extending a few inches above and below the joint, or by one long splint, extending from the trochanter-major of the femur to the foot; the patient at the same time being confined to the bed.”

With perfect quietude such local means must be employed in the first stage, as tend to allay irritation and soothe, as the occasional application of leeches to the part, emollient cataplasms, decoction of hemlock, or poppy poultice, &c.

“It frequently happens that when an abscess forms, communicating with the cavity of the joint, it is accompanied with a great degree of tension and pain by which the health becomes considerably disturbed. In such a case as this, I am convinced that it is better to open the abscess, and that by so doing a great deal of mischief may be prevented.

When all irritation in a diseased joint has ceased, and there only remain swelling and sinuses, at the bottom of which bare bone may be felt with a probe, the application of issues or setons near to the part where the bone is bare is highly efficacious; or if there be no open sinuses, and there be only enlargement of the joint remaining, the application of repeated blisters, or the tartar emetic ointment, will be of the greatest benefit. The judicious use of compression at this period, by means of proper bandages, is highly serviceable;

and perhaps it is most efficacious when made by means of Baynton's bandage."

Previously to forming an opinion on the propriety of amputating a limb, on account of a scrophulous disease of a joint, the following inquiries should be made:—

1st, Whether the patient has been under the care of a judicious well-informed, and experienced surgeon?—2dly, Whether the local disease is certainly acting upon the general health?—3dly, Whether the diseased joint is keeping up such irritation, that its preservation and the restoration of the general health are incompatible?—And, 4thly, Whether there be a fair chance of the patient's recovery, provided the limb be removed?

If, upon making the first inquiry, we find the patient, instead of having been under the care of a respectable surgeon, has been under the care of some quack, who has made use of, in the most active stage of the disease, tight bandaging, electricity, or other violent means, and so produced extensive inflammation and abscesses; and if then, upon making the second and third inquiry, we find that the local disease is so terribly disturbing the general health, that without its removal there can be no chance of restoring a tranquil state of health; and if, upon making the fourth inquiry, we ascertain that there is no other disease existing which can diminish the chance of the patient's ultimate recovery, we are completely justified in performing the operation.

But if the reverse of this is the case; if the patient has been under the care of a respectable surgeon, and every thing has been done from the first that could be done; if it be uncertain that the local disease produces the general disorder; or if, according to the third inquiry, it be not certain, that the restoration of the general health be incompatible with the existence of the local disease; or if there be evident symptoms of disease existing in parts which have more important functions to perform, as in the lungs, an operation should by no means be advised.

Scrophulous disease of the hip-joint.—The cancellous structure of the head of the femur undergoes in this complaint precisely the same changes which I have described as taking place in the same situation in the other bones. The neck of the femur too, and the great trochanter, are often included in the disease, and sometimes the cancelli of the whole bone.

In the progress of the disease the cartilage of the head of the bone ulcerates, and the synovial membrane inflaming, matter forms in the cavity of the joint. At this period it is common for the cartilages of the acetabulum also to ulcerate, and for the contigu-

ous bones to become extensively carious. The head of the femur too, is generally in a similar state, and sometimes the whole of it, and even the neck, are destroyed. Indeed, in protracted cases, it is not at all unusual to find, after death, that the head of the bone has been removed by ulceration, or broken down by caries, and mixed with the matter in the joint, and the neck extensively carious; and sometimes the trochanter major in a similar state. Occasionally, abscesses form in some part of the head or neck, communicating with the cavity of the joint by small apertures; or we find deep excavations in them filled with a dark coloured and offensive matter.

Though the femur is more frequently the only bone originally affected in this disease of the hip, it is not more surprising than the bones of the acetabulum should be subsequently included in the disease, than that the ligaments and other soft parts should be secondarily affected. Nor is there more reason to be surprised at finding them so extensively carious, when we consider how rapidly common inflammation is capable of disorganizing bone and every other part of the body. The round ligament is generally destroyed very soon after, the cavity of the joint becomes included in the disease. Scrophulous disease in the hip joint, as in all the other joints, comes on so gradually and insidiously, that it is scarcely possible to discover it till the morbid alteration of the bone is gone on to a considerable extent. The first indications that we have of this disease, if we except the disorder of the general health, are, that the patient is a little lame, and walks on his toe, and that he complains of being tired much sooner than he would be if he were in health. This state will often exist for several months without the patient feeling pain, but at length the lameness increases, and the affected limb is never carried so far forward in progression as the opposite one, and shooting pains are occasionally felt in the joint and other parts of the limb. Upon examination, the muscles of the thigh and nates of the affected side are found wasted, and as the disease advances, the wasting of the muscles increases, and the limb becomes evidently smaller than the opposite one, and the nates of that side appear widened and flattened. If pressure be now made over the joint, behind the great trochanter, or in the groin, it occasions pain, and the bone about the trochanter often feels as if it were thickened and enlarged.

It is not uncommon for the glands of the groin to take on the scrophulous action, to enlarge and suppurate, as one of the first symptoms of the joint or hip being diseased.

In disease of this joint, as in the others, it often happens that abscesses form in the external parts, and I believe they oftener occur about the great and lesser trochanter than in other places, but

of course they may occur in any other situation. The formation of these abscesses seldom produces so much pain and constitutional disturbance, as when suppuration commences within the capsule.

When the displacement of the head of the bone takes place, the limb consequently becomes shortened, and the same thing of course occurs when the head of the bone is destroyed, as there is nothing to restrain the action of the muscles. In these cases, when the head and neck of the bone are destroyed, the displacement and drawing up of the femur does not usually occasion any particular direction, or turning in or out of the foot as in dislocation from accident, or when the head is of its natural size.

In the first stage of this disease, it is common for the limb to appear either elongated or shortened, but I have oftener seen it appear shortened. There is, however, no real elongation or shortening of the limbs, but it entirely depends upon the position of the pelvis with respect to the spine, for as this is inclined more or less to the diseased side, of course the limb must appear proportionally elongated or shortened.

In this disease, it is certain that the patients often refer the pain that attends it in its early stage to the knee, and sometimes the pain is said to be acute there. It has been also observed, that the pain is frequently not confined to any one spot, but affecting the whole limb.

Treatment.—The constitutional treatment of scrophulous disease of the hip joint, of course, differs in no respect from the treatment recommended in all other scrophulous diseases. There are, however, in the local treatment certain minutiae to be attended to, arising from the nature of the part affected; but the principles which must govern this part of the treatment, are the same as in scrophulous affection of the other joints.

Directly after it is ascertained that the hip joint is diseased, it is always absolutely necessary to strictly enjoin the most perfect rest, as, without attention to this point, all the remedies we may employ will generally fail in arresting the progress of the disease.—As, too, in all the varieties of hip disease, there is invariably a great disposition in the thigh to become bent upon the body; in the leg to become bent upon the thigh; and in the spine to become awry; a mere state of rest is not all that is required, but it is also important that we attend to the position of our patient. The patient, therefore, should not only be constantly confined to bed, but should also lie in an horizontal position; the lower extremities should be kept constantly straight, and the trunk of the body should not be allowed to incline either to one side or to the other, so that the heels shall be as near as possible in the same line."

The machine which the author has employed in this disease with advantage, for the purpose of maintaining the limb in perfect quietude, consists of a spring which is firmly attached to the pelvis above the trochanter major, to which is fixed a long splint which is applied to the limb, in the ordinary way, with or without an inner one. The abstraction of blood from the part by cupping or leeches, does not appear to be of any material benefit; and contrary to what happens in scrophulous disease of the other joints, the early use of counter-irritants are of the greatest service in this particular. For this purpose, issues, or irritating the external parts with tartar emet. oint. are in general to be preferred. The best place for the issue, is just behind the great trochanter; to which may be conjoined if necessary, a seton in the groin. These means will be rendered still further efficacious, by keeping the joint at the same time enveloped in an emollient cataplasm.

Scrophulous Diseases of the Spine.—The curvature of the spine is of two kinds, the angular and the lateral. In the former there is always more or less destruction of the vertebral column, which progressively undergoes the same changes as the other joints affected with scrophula; but in the latter species there is generally no destruction of parts, but merely an alteration of structure.

The angular curvature is most to be dreaded and is most generally of a scrophulous nature. It may take place at any part of the spine; but generally occurs at the upper part of the dorsal vertebræ.

The symptoms which usually attend this species of the disease, or the effects which this condition of the vertebræ produces, are to communicate diseased actions to, or to excite irritation in, the medulla spinalis, and nerves particularly connected with it; and to occasion inflammation and abscesses in the contiguous soft parts.

The symptoms of diseased actions going on in the medulla and nerves are, generally, constant local pain, often diffusive, but I believe commonly always greater at one spot; paralysis, more or

less, of certain parts—of what parts, depends in some measure, but not invariably, on the seat of the disease in the spine—generally, however, of the lower extremities, and of the sphincters of the bladder and anus, so that the power of moving, or of directing the movement, of the legs, and of retaining the urine and fæces, is lost; diminished power in the coats of the intestines and bladder, so that they become torpid and inactive; sense of sinking at the stomach; respiration slower than natural, with occasional interruptions; intermitting pulse, and wasting and flaccidity of the muscles of the extremities. All these symptoms, of course, vary in degree in different cases.

The symptoms of mere irritation about the medulla spinalis, or about the origin of the spinal nerves, and which are the symptoms most commonly attending the angular curvature, also depend in some measure on the seat of the spinal disease, and on its extent; are diminished power in the lower extremities, accompanied by convulsive twitchings, and irregular actions of some of the muscles, and sometimes even rigid spasmodic contractions of them, so that the foot and toes are drawn downwards, and the legs are drawn upwards and backwards, and immoveably bent on the thighs, with a sense of great tightness, or constriction, round the ankles; also, wasting of the muscles of these parts, a sense of coldness and shooting pains; likewise shooting pains about the chest; a sense of tightness and uneasiness at the pit of the stomach; hurried respiration, with occasional convulsive actions of the diaphragm; and often quickness and hurry of pulse. In every case of angular curvature there are commonly all the symptoms of general debility and irritation."

The symptoms of the lateral curvature are very similar to the proceeding, mostly varying in degree.

Treatment.—In diseases of the spine, the constitutional treatment is of the highest importance and does not differ in any essential from what has been given for the other forms of scrophula. When the curvature is angular, early recourse must be had to counter irritants, and for this purpose, issues are the best, made as near to the projecting part as possible and as large as the patient can well bear, without creating general irritation. It is also of great importance to keep the patient continually in a horizontal posture, lying on his back with his limbs extended, and as quiet as possible. Even

after the recovery is considerably advanced, all irritation having subsided and when the patient is allowed to sit, the spine should for a time be supported by the use of the machine recommended for lateral curvatures.

When abscesses form in consequence of the disease, (a very common occurrence,) and point in the groin and other parts, it is better to delay opening them as long as possible, as sometimes very large collections of this kind are wholly absorbed ; and when an opening is made it should be after the manner directed by Mr. Abernethy.

In lateral curvature, when the symptoms of irritation about the spinal cord, or its nerves, are not very great ; and there is no reason to suspect any actual disease of the vertebræ : frictions stimulating embrocations over the spine, a reclining position, with attention to the general health ; are the principal points to be attended to in the first instance ; and will frequently correct the evil, without resorting to other means. But where there is reason to believe that the bones are actually diseased and carious, the employment of counter-irritants is not to be neglected. When the patient is allowed to sit up, either before the recovery is completed, or for the purpose of air and exercise, it is very important to aid the spine in supporting the trunk by means of some machine adapted to such cases.

To give the necessary support to the back when sitting down, it is only requisite to have a small chair, with a kind of crutch attached to each side of the seat of the chair which shall press in the most gentle manner against the ribs in the axilla, the arms of course hanging over them. It is necessary too for the crutches to be made so that they can be elevated or depressed at pleasure, as it is sometimes, though but seldom, desirable to have one side more elevated than the other. The heads of the crutches, too, should be made to turn round, so that, if necessary, they may be applied as an equivalent to a backboard, to keep the shoulders back. Nothing, in my opinion, can answer better than this simple contrivance ; it neither produces pain nor uneasiness ; indeed, it preserves the back so straight, and so completely supports it, that it is by no means an unpleasant mode of sitting.

When it is determined that a patient shall make use of exercise, I have invented an apparatus which affords the necessary support to the spine. Crutches, such as I have described before, should be made use of; but as there is no chair to rest them on, they are to be fixed to two pads, one above each hip, which must be confined to their situation by a slight spring behind, and by a soft leather strap before. These crutches too are so constructed, that they can be easily lengthened or shortened. They may be applied under the common dress without the least inconvenience; or they may be applied over it, and a great coat or cloak worn with them; so that in either case, no stranger can have the least idea of there being any thing on more than common. They do not either, at all impede progression, nor do they produce the least uneasiness; indeed like the chairs, to any one who is at all weak in the back, they are rather comfortable than otherwise. Of course, if it be thought adviseable, in any case, to afford any particular or additional support to the front or back of the body, it can readily be done, as it is really amazing how little is sufficient, when judiciously applied, to give the body a particular direction, and to keep it there; but such means can hardly ever be necessary, for if they be required, it can never be right to allow a patient to walk about."

"When the vertebræ of the neck are affected, it becomes necessary to support the head, and of the various machines that are recommended for this purpose one constructed on the principle of the old steel collar, will be found the best. This is to be supported on a pad fastened to some part of the back, and connected to the crutches which support the spine. To the brim of the collar a lunated portion of steel is attached, behind and before, to each of which there is a strap, the one for the back of the head to rest on, the other to support the chin."

Scrophulous disease of the lungs.—The author seems to think with Cullen, that scrophulous tubercles are one of the most frequent causes of phthisis; and he has given one of the best descriptions of the morbid alterations produced in the pulmonary organ, that we have any where met with.

"The first change which the lungs undergo, when they take on diseased action, in a scrophulous state of the constitution, is the deposition of particles of a cheesy scrophulous matter, such as has been already described, in their parenchymatous structure.

The tubercles appear to be surrounded by cysts, but on close examination we find that these are nothing more than condensation of the surrounding substance of the lung. The tubercles will often go on enlarging to an indefinite extent, and as they enlarge, it frequently happens that two or more of them will coalesce, forming one large mass of scrophulous matter, made up of different portions, and each portion having apparently a distinct cyst, which preserves its vitality to the last, as its vessels are readily injected when we throw an injection into a lung in this state. The tubercles, however, are clearly unorganized matter, as the injection never passes into them, and as they never show any of the properties of living matter, particularly that uniform property of forming vascular connection to surrounding parts, whenever placed in circumstances favourable to it; but like dead matter, continuing insulated and unconnected with the surrounding parts, so that you may turn them out of the cavities in which they lie without injury, and leave the part of the lung surrounding them perfectly smooth, in the same manner as an acorn will turn out of its cup, or a nut out of its husk."

It is not uncommon to meet with small masses of calcareous matter, of a substance very much resembling cartilage, and portions of a whitish matter resembling the medullary substance of the brain, only of firmer texture, in different parts of a lung, studded with scrophulous tubercles. The lungs will often remain in the state described for some time, without creating much irritation or inconvenience, but at length an inflammatory disposition is induced, which may be termed the second stage of the disease.

"In this stage the substance of the lungs, to an uncertain extent surrounding the tubercles, becomes gradually consolidated by a species of slow inflammation. Sometimes the lung will undergo this change all around the tubercle, but at other times only on one side. When this alteration has taken place, the bronchial or tubular structure of the lung is obliterated, and its consistence is more like that of the liver than the lungs. Sometimes, too, the lung gets into this state while the tubercles are of the smallest size; but when this is the case, they are, generally, exceedingly numerous."

The contents of the vomicae generally find their way into the bronchia, and are discharged by coughing; but sometimes there is

no exit, as the suppuration having been imperfect, the surrounding substance of the lung is thickened and consolidated. When a larger abscess forms it may be discharged in the same way ; but it occasionally happens, that when it is situated in the upper part of the lungs it will burst into one of the larger bronchial ramifications, fill the trachea with matter, and produce suffocation, and almost instant death."

Sometimes these abscesses make their way to the surface of the lung, and burst into the cavity of the chest ; or, the lung forming adhesions to the other parts, they may burst into either of the mediastina, or into the pericardium, or even into the abdomen, or externally as a common abscess on the surface of the body.

The author does not enter into any detail on the treatment of this form of the disease ; but is inclined to place the chief dependance on counter irritation by issues, conjoined with proper constitutional treatment.

Scrophulous disease of the heart and abdominal viscera.—The heart and pancreas are very rarely affected with this disease, the liver and spleen rather more frequently, and the kidneys more liable to the disease than any other of the abdominal viscera.

Scrophulous tubercles of the liver like those of the lungs, are distinct from the substance of the organ. Dr. Baillie states them to resemble in their texture a scrophulous absorbent gland, spread through the substance of the liver, but producing little irregularity of its surface. They sometimes are converted into a scrophulous pus, but by no means so frequently as the tubercles of the lungs.

"In addition to the preceding description, I may observe that the form, size, and number of the tubercles are exceedingly various. Sometimes they are extremely numerous, and of the most minute size, and distributed through the entire substance of the liver ; at other times, they are also numerous, but of larger size and of a regular form ; and occasionally they are few in number, and are apparently composed of large masses of scrophulous mat-

ter, of various and irregular shapes, but still being enclosed as it were in a cyst. I may observe too, that the true scrophulous tubercles in the liver generally appear more closely connected with the substance of the gland immediately surrounding them than the same species of tubercles do, in the lungs.

Scrophulous disease of the brain.—The brain is not very unfrequently the seat of scrophulous tubercles. It seems, too, that they may exist for a considerable time without producing any symptoms which can indicate their presence; and that it is not till they begin to excite irritation in the substance of the brain surrounding them, that they at all interrupt the functions of the nervous system.

The tubercles of the brain, like those of other parts, are unorganized, and distinct from its substance; and having exposed one of them, you may readily lift it out of its bed without rupturing any vessels, or lacerating any of the parts contiguous to it.

I have remarked that the symptoms produced by tubercles in the brain are very equivocal and irregular. In one patient who died of this affection, there was paralysis of the lower extremities, without any other decided symptoms, though, on examination after death, there was also found a turgid state of the vessels of the pia matter, and a considerable quantity of water in the ventricles. A child, two years and a half old, who died of this disease had frequent epileptic fits, but at other times was in good spirits and free from any perceptible nervous symptoms.

Scrophulous ophthalmia.—In this species ophthalmia, at an early stage, the edges of the eyelids appear red and thickened, and there is that appearance of the whole eye which is generally attributed to weakness, and if we turn down the under eyelid its lining seems slightly thickened and inflamed: the pain which accompanies this stage is very trifling. This state will frequently exist for a considerable time, often till the eye becomes excited by some accidental irritation; but it also happens, that without any evident cause the chronic inflammation spreads to that part of the conjunctiva covering the eyeball; vessels carrying red blood shoot over the cornea, which at first produce only a general dulness, but subsequently white opaque spots, or complete opacity of some part.—Moreover, it is common, after the disease of the eyelids has continued for some time, for small pustules to form on the margins of the eyelids, or on different parts of the cornea, occasioning surrounding inflammation, and consequent ulceration and opacity.

As this disease depends upon the same disorder of the general health as all other scrophulous diseases, it follows that the constitutional treatment should be very much the same."

The local treatment is very simple. The milder forms of the disease merely require a lotion that is gently stimulating and astringent, and the application of some mild cerate to the tarsi at bed time, to prevent them from gluing together. When small ulcers or pustules appear on the lids, the best application is diluted citrine ointment, or bathing them with a decoction of poppies. Ulcers of the cornea are to be touched with some caustic or a solution of opium; and if there be much inflammation of the eye, the application of a blister, or two or three leeches, will be of service in abating it.

We have extracted thus largely from the discursive part of the work, because we believe Mr. Lloyd has given more just and clearer details of the nature of scrophula, and the various alterations it produces, especially in the osseous system, than are to be found in any work with which we are acquainted; we fear that he has laid too much stress on the efficacy of the remedies he directs, to correct the diseased condition of the habit, but, on the other hand, we have the greatest confidence that an attention to another part of his directions, will be attended with the best effects: we mean the advantages to be derived when the disease affects the bones, from keeping the part affected during the whole course of the disease, in the most perfect rest and easiest position; which has heretofore been too little attended to; and which can only be done effectually so as to prevent deformity, by having recourse, as he recommends, to the employment of splints in the case of white swelling of the extremities, and an apparatus to afford a moderate support to the spine in disease of this part, when the patient, as the cure advances, is allowed to rise from his bed.

Note.—The above analysis was prepared for the preceding number, but gave place to other articles. Since which time, we have treated a great number of Scrophulous diseases on the principles set forth by Mr. Lloyd, and although the time has not been sufficient to see the full effect of the treatment in all the cases, yet we have so constantly witnessed a sensible amelioration of the disease, and improvement of the general health, that we are persuaded that it is the very best method of treating Scrophula that has yet been offered to the profession; and that it will agreeably disappoint the expectations of those physicians, who look to heroic means alone, for a sufficient remedy to overcome this obstinate distemper.

COLLECTANEA CLINICA.



Case of Anomalous Disease. By JOHN MEEKER, M. D. of Alabama; communicated by DR. ALEXANDER H. STEVENS, of New-York.

MR. JAMES B. COLBURN, born in Boston, aged 18 years, went to France in the fall of 1816, having previously enjoyed good health; about the 20th of November he had a few paroxysms of the fever and ague, from which he soon recovered. On the 13th of December at 9 o'clock in the evening, he felt an inordinate thirst, he drank in about five minutes two quarts of cold water, and fell suddenly on the floor; his body, arms, legs, eyes, and mouth, were contorted by the most violent spasms; he was carried to bed with some difficulty, and continued until midnight in the same agitation, requiring four persons to hold him. At this time the spasms left him, and he remained free from them until the same hour on which he was attacked the preceding evening, when, after two or three minutes warning, by a change in his feelings, (which warning, by the bye, he always had previous to all his attacks afterwards,) the spasms recurred with as much violence as before, and continued the same length of time.

The spasms returned very regularly, and were very uniform in their appearances for seven successive nights; the eighth night he escaped them. The intermission lasted four days and nights, when they again returned, but without any regular or stated periods of attack. Sometimes the paroxysms were so severe, that he would spring up into an erect posture, before his attendants could prevent him, and then again, throw himself out of the bed. Four persons were kept in constant waiting, to hold him; during the paroxysms, he

would frequently have alternate fits of raving and of laughing. They continued in this violent way, about two weeks after the four days intermission; he was constantly liable to them, day and night; they then considerably abated in violence, but he continued subject to them about six months. During all this time he was under the care of several eminent French physicians, who treated him chiefly with anti-spasmodics.

The preceding history I received, partly from the young gentleman himself, and partly from a letter written to his father, by the French gentleman at whose house he was sick.

In the summer of 1819, Mr. Colburn came to the state of Alabama; the first of August he came to St. Stephens, having previously fatigued himself very much in getting some goods up the Alabama river, to the town of Claiborne. On the 6th instant, he was attacked with the usual symptoms of the fever in this climate; I visited him, and prescribed the usual remedies. This fever was a malignant tertian, as described by Alibert. Having just arrived from the north, being of a very plethoric, full habit, much danger was apprehended from his situation; but, in five days he began to convalesce; his recovery was protracted by his imprudence in eating, bringing on a slight fever once in three or four days. On the 25th instant, he was attacked with one of his nervous paroxysms; after the premonitory notice before mentioned, he fell back suddenly on a sofa, in a state of insensibility; he was not affected by spasms in any way, but resembled a person lying in a sweet and tranquil sleep; he lay in this state about ten minutes, when he moved his hand to the left iliac region, and after appearing restless and uneasy a few moments, he recovered sensation, complaining of some pain where he had placed his hand. During the paroxysm, his pulse underwent no change until towards the termination, it became a little more frequent and weaker; on moving his

limbs in any direction, they remained fixed, but motion excited in them a slight tremor, and he complained when he recovered, of an uneasy sensation in them where they had been handled. From this time, these paroxysms recurred almost every day, and frequently several times in the day, for ten days; their duration was from five to fifteen minutes. After this, they assumed a new character; the paroxysms were similar to those described above, except they were of shorter duration, and when they left him, he had lost the sense of hearing altogether; he could converse by having the questions written and given him; the loss of this sense would continue about fifteen minutes each time. After having several of this kind, they changed again; he then lost the sense of speech, but retained his hearing; it then required him to carry on his part of the conversation in writing. At each paroxysm, when he would recover the loss of speech or hearing, the pain commencing in the left side would be much more severe, than on a recovery from a simple paroxysm; it would rise up to the heart, and sometimes to the throat, like *globus hystericus*.

He continued laboring under these paroxysms sometimes of one kind, and then of another, convalescing slowly, until the first of October, when he left St. Stephen's, he had but very few afterwards. In November, he returned to Boston, and came to Alabama again in the following spring, in fine health, and continues free from all those nervous attacks since, and has enjoyed uninterrupted good health to this time. I gave him for the nervous affections, strong doses of anti-spasmodics, viz. musk, æther, castor, hartshorne, &c. but without any apparent effect; had they come on at regular periods, it is probable that a large dose of some of the above named articles, given a short time previous, might have checked the disease. I have now given you a faithful narrative of one of the most singular diseases I ever met with.

Very respectfully yours, &c.

A. H. Stevens, M. D.

JOHN MEEKER.

Case of Dysentery. By JOHN MEEKER, M. D. of Alabama ;
communicated by ALEX. H. STEVENS, M. D.

THE Honourable JUDGE LIPSCOMB, aged 35 years, was attacked the evening of the third of May, 1820, with dysentery ; the griping and tenesmus was severe, the discharges blood and mucus. He had just returned from a long journey ; for nearly two months he had undergone great fatigue, and suffered many privations. The constant application to the duties of his office, and his former sedentary life, brought on a costiveness so great, that sometimes four and five days would intervene between discharges from the bowels.

The 30th of April he was attacked with a spontaneous diarrhœa, which continued, though not severe, until the evening of the third of May, when the dysenteric symptoms commenced. On the morning of the fourth, after a sleepless night, he took a dose of castor oil, which operated very well ; but in the evening when I was called to visit him, the discharges were frequent and attended with pain ; he was plethoric, and had some pyrexia ; I took away 16 oz. of blood, gave 15 grains of Dover's powder, and directed a pediluvium and tepid drinks. He slept about two hours, perspired freely, awoke, and vomited some bile ; the griping and pain continued, though not so severe. On the morning of the fifth an inclination to vomit, and bile was ejected in small quantities ; gave an emetic of Ipecac, which operated several times, but did not bring away much bile ; the stomach continued irritable. Gave 3j. Sulphas Sodæ, which was soon rejected ; the tenesmus and pain very severe, nothing discharged but blood and mucus ; gave an injection of 12 oz. cold water, it did not remain more than a minute. No mitigation of the symptoms ; in half an hour gave another injection of cold water, with 3j. Laudanum, it remained a little longer than the first ; about ten minutes afterwards, there was a co-

pious discharge of foetid excrementitious matter, with a great number of hard scybala, or balls ; great and sensible relief was obtained from this evacuation ; the patient slept about three quarters of an hour, and awoke with his stomach so irritable, that nothing would remain upon it a moment ; the disjections from the rectum were not so frequent. Applied laudanum and camphor to the region of the stomach, and gave acetate of potass in a state of effervescence with laudanum ; these gave some relief, so that the stomach retained pills made of calomel and opium, to the amount of fifty grains of the former and five of the latter, through the course of the evening and night ; which operated, and brought away a great deal of offensive matter ; pulse small and frequent through the day, a little excited in the evening ; drinks of arrow root and boiled milk had been given him from the first. This evening enemata were tried again, not more than 4 or 5 oz. could be made to remain, and that not more than half a minute. So irritable, and so much inflamed was the rectum, that my injections of arrow root with laudanum were then tried, but with no better effect.

On the morning of the sixth, the symptoms but little abated ; the patient had slept sometime after the discharge of *æculent* matter ; the tenesmus and bloody stools, racked the patient, and kept him constantly getting up, and while on the easy chair he was tortured with agonizing pains. The stomach continued so irritable, that nothing would remain on it except an Indian drink, called by the Choctaws, "*Tomfoola*," prepared by boiling pounded corn in water, and adding a small proportion of ley. This is made in form of a drink, so as to contain a good deal of nourishment. This was also frequently ejected by the stomach. Applied a blister to the epigastric region ; gave enemata of the infusion of elm bark ; gave a pill composed of calomel gr. viij. opium gr. i. every two hours, which generally remained upon the stomach ; pulse small and frequent ; in the evening the dischar-

ges were as frequent as every fifteen or twenty minutes, but the pain much abated ; a good deal of restlessness ; applied blisters to the wrists and ankles.

7th. The patient slept but little during the night ; the stomach ejected the pills frequently before morning ; no operation of medicine ; the inclination to go to stool as frequent as yesterday ; the pulse this morning, very frequent and feeble ; tongue clean, the temperature of the body rather below the healthy standard ; the stomach very flatulent ; gave oil of anisi rubbed with calcined magnesia. The pills were given as yesterday with the addition of camphor, but were frequently ejected ; continued the elm injections, and occasionally added laudanum ; directed the infusion of elm to be drank, but little remained on the stomach. In the evening, the pulse a little raised.

8th. The evacuations of blood and mucus had continued very frequent through the night, but attended with little pain ; the patient slept but little ; this morning the pulse very weak, scarcely perceptible. His features are contracted, and put on very much the hippocratic character ; directed brandy and water. The patient has such an aversion to medicine, that it, together with the irritability of the stomach, almost precludes all prospect of affording relief. A decoction of cinchona: Offic: with aromatics was prepared, but the smell of it excited vomiting ; calomel pills omitted, and ten grains of Rhei given in the course of the morning, with cream of tartar drink. About the middle of the day, the discharges from the bowels were copious, preceded by some pain in the umbilical region ; they were almost without smell, of a dark greenish appearance ; the debility was so great, that they were voided as he lay in bed, and were frequently coloured with blood, but no pain in the rectum ; his principal nourishment was still the Indian drink. In the evening, was extremely weak, but not so restless, continues the brandy and water.

9th. The stomach was more retentive during the night ;

the dejections from the bowels were frequent, but entirely without pain; a very copious purulent discharge took place during the night, mixed with a little blood; continued to drink sol. sup. tart. potass; to-day he took soup, and was evidently convalescent. The dejections of purulent matter continued throughout the day, and occasionally one of a feculent nature; they were, however, quite involuntary. The rectum is so totally relaxed, that it does not contract at all, it is in a perfect state of collapse. Directed enemata of decoction of oak bark, and cloths wetted in the same to be applied externally to the rectum. A dysury had existed during the whole of the disease to a considerable extent.

He now began to convalesce; the obstruction was effectually removed, from the time the discharge of pus commenced; pus continued mixed in the dejections for about a week. He recovered very slow; his dislike to medicine was so great, that he would take no other tonic than brandy, and that very sparingly. The rectum did not recover its tone and strength for many weeks afterwards.

During the violence of his disease, calomel was the only aperient that could be given in sufficient quantities to move the bowels; Ipecac would have been added, were it not for the extremely irritable state of the stomach, which would have been increased by the bulk of the medicine, and by its nauseating effects.—I have found Ipecac, Calomel and Opium combined, a valuable compound in dysenteries in Alabama.

Very respectfully, yours, &c.

JOHN MEEKER.*

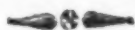
A. H. Stevens, M. D.

Remarks.—The above case which my friend and pupil Dr. Meeker has so ably detailed, is a very striking exception to that general law of the animal economy, which restrains the actions of inflammation from passing to contiguous parts of dissimilar structure. In conformity to this law, in the most severe attacks of inflammation of the Synovial membrane, the super-jacent skin is never primarily affected. The various phlegmasiæ of the

Peritonæum, even of those portions which immediately invest the intestines, rarely extend to their contiguous mucous surfaces, tho' they readily pass to every continuous serous surface ; so too the inflammation of the mucous surface of the larger intestines, which constitutes dysentery, seldom penetrates through the inner lining of the bowels. In the very severe case, however, above related, it would seem that the larger intestines, or some portion of them, become agglutinated by effused coagulable Lymph, that ulceration of the adjacent mucous surface occurred ; that pus was secreted, as is usual, in the cells of the cellular membrane of the part, and at length collecting into one cavity, was discharged into the bowels by the absorption of the agglutinated cellular membrane and intestine, constituting the walls of the abscess.

In the very excellent work of Dr. Gallup, on Epidemic diseases, of Vermont, it is stated that the appearance of Scybala is very rare in this country—that “ in eight years practice, and in more than three hundred cases of real dysentery, not a solitary case appeared with or without cathartics, of the Scybala spoken of by authors.” If I have judged rightly of the practice of others, which I have witnessed, too much stress has been laid on the evacuating of Scybala, which are to be considered a consequence, not the primary exciting cause of the disease. The intestines under the excitement of this febris introversa, (and no two words ever conveyed more extensive, correct, pathological notions, than this language of Sydenham,) are preternaturally sensible to impressions from whatever is within them. In the deranged operation of those associated muscular movements, which are naturally intended to empty the intestines, tormina and tenesmens ensue ; and the fœces and alvine secretions are retained : yet their retention in the first instance, is a less evil than to exercise the tender surface of the bowels, with an irritating ; purgative and what purgative is not irritating ? It is surely better to treat the forming stage of the disease, with remedies which determine to the surface and quiet irritation, than to exhibit cathartics in the expectation of evacuating Scybala, which primarily never exist, and secondarily are as seldom met with.

S.



A Case of Malignant Intermitting Fever. By JOB HOBHOUSE,
M. D. of Grenville.

MR. T. S. of this town, aged 35 years, bilious temperament, small stature, and meagre habit of body, was attacked

in May last with intermitting fever of quotidian type, which the practitioner first called to his aid, endeavoured to arrest by the cold shower-bath, administered a short time before the expected invasion of the fourth paroxysm; but this means only served to render the fit more violent and protracted than either of the preceding. An attempt was then made to prevent the accession of fever, by giving a large dose of pulvis Doveri, which was equally unsuccessful, and the cortex cinchonæ was next resorted to, given in small doses and irregularly: this soon rendered the fits irregular, and finally converted the fever into a tertian.

I first saw the patient in the latter part of June, when I found him much emaciated, with the pulse feeble, skin sallow, husky and febrile, bowels slow with scanty evacuations, the mind listless, and the apyrexia far from being complete. I obtained free alvine evacuations by a purgative composed of rhubarb and sulphur, and administered a half an hour before the expected paroxysm a scruple of pulvis Doveri, which produced copious diaphoresis and prevented the febrile stage. This was followed by the exhibition of a powder composed of cortex cinchonæ ℥ii. rad: serpentar: ℥i. to be repeated every three hours, by which means the intermittent was completely suppressed, but was succeeded in a few days by a train of symptoms at once puzzling and alarming. The pulse became extremely small, irritated, and frequent, the skin hot and caustic to the feel, dry, and as it were, withered—the bowels costive, and only affording scanty evacuations from the employment of ordinary cathartic pills, the eyes dull and cast down, the countenance expressive of distress and melancholy broodings; if spoken to, he would look up and appear as if just bursting into tears, and then immediately relapse into his former state: he would, if permitted, lie constantly in bed, neither asking for any thing, or noticing any of the domestic transactions going on about him; when prevailed on to be dressed and sit up, he would remain in his

chair equally unconcerned, apparently indifferent as to his fate, taking when urged small quantities of food, but would never ask for it or express a preference for a particular kind. If asked of what he complained, he would answer, not much, he did not know, had no appetite, or that he did not feel well; but if pressed more closely, he would acknowledge that his head felt confused and ached, and that he felt an uneasiness and distress in his right side under the ribs, which part was tender to the touch. He was freely purged three successive days by large doses of calomel and jalap, and took in the intervals pulvis antimonialis, in moderate doses, on which the skin became somewhat moist, the cerebral affection appeared relieved, the patient took more notice and concern in things going on about him, and also made more complaint of pain and uneasiness, which he chiefly referred to the region of the liver, with general tenderness and soreness of the abdomen. A dry cough supervened about this time, which harrassed the patient for two or three days and then disappeared without having afforded any expectoration. A blister was applied over the region of the liver, and the purgative and diaphoretic plan of treatment continued several days longer, with evident good effect; for notwithstanding the repeated purging, the patient gained strength, was more disposed to sit up and walk about, and the pulse also became stronger and more developed. A large lumbrical worm was discharged in one of the cathartic operations.— Nearly a month after the suppression of the tertian intermitting, and after the patient had taken eight or nine cathartics in the course of about twelve days, the fever reappeared in its former tertian type and character, on which the abdominal uneasiness entirely left him, he regained his former spirits, took food during the apyrexia with relish, and expressed himself much relieved. Four or five paroxysms were allowed to recur without doing any thing more than attending to the state of the bowels, and giving diluents; after which, the

pulvis cinchonæ was regularly administered and persevered in for some time with the best result ; for the fever was at once and permanently overcome and the patient recovered, though rather slowly, his health and vigour, and returned to his former occupations.

Remarks.—The cause of the irregular and malignant character of intermitting fevers, can be ascertained with more certainty than those of a continued type, where the intensity of particular symptoms are apt to occupy our chief attention, and doubtless often divert us from the original and more important lesion. It is on this account principally, that cases similar to the above are worthy of record, which, by exhibiting the concurrence and succession of symptoms in such complications, may enable us better to comprehend the nature of continued fevers. Sydenham was especially impressed with the importance of this mode of investigation, and Cullen has given the paroxysm of an intermittent as the archetype of all fevers ; yet, it must be acknowledged that pyrology has gained little from this view of the subject.

The untoward symptoms which arose in this case on the suppression of the intermittent, would have been considered in earlier times, and even at present by some European continental physicians, to be caused by the Peruvian bark. Albertini of Italy, with some speciousness, would have attributed them to the suppression of the fever without critical evacuations. But I think we can with more reason look to the torpid and infarcted condition of the liver, induced by the repeated recurrence of violent paroxysms, for the solution of the difficulty. For we find on arousing and evacuating that organ by the continued use of cathartics and diaphoretics, together with blistering over the part affected, the symptoms yielded. The patient, it is true, suffered a relapse of the fever, which I conceive arose, not from the necessity of its recurrence in order to restore the system to health, but as the effect of the debilitating character of the remedies, and

would probably have been avoided, had the biliary disease been overcome by the application of the blister merely, or the employment of gentler means. It is not an uncommon occurrence for an active purgative to produce a relapse of an intermittent, and this fact suggests a curious problem, which I have never been able to resolve. It is this: how happens it that the same effect does not ensue in convalescence from continued fever, even from excessive alvine evacuations, or any other debilitating discharge?

A case of Fever, terminating in Hydrocephalus Internus. By
JOB HOBHOUSE, M. D. *Practitioner of Medicine in Greenville.*

ON the 14th of July last Mr. D. L., aged 26 years, of sanguine temperament and good habit of body, was seized with a febrile attack, that might be denominated a common continued fever of some intensity, but which did not exhibit in its progress any untoward or dangerous symptoms. The bowels were in the first instance, thoroughly evacuated by an active cathartic, and the case trusted to the repeated administration of pulvis antimonialis, together with a strict observance of the antiphlogistic regimen. Under this treatment, with a constant attention to keep the bowels in a soluble state, the patient went through his disease, as I thought happily, and on the thirteenth day appeared to be completely relieved of his fever and fairly convalescent. I then directed the remedies to be discontinued, and as the patient's habit was naturally vigorous, trusted to the use of light and nourishing food for the re-establishment of his health; on the third day of convalescence, I found my patient dull and listless, little disposed to leave his bed, although he was perfectly free from fever, and acknowledged no particular ailment;

on the fourth day, he complained of violent pain of the head, chiefly in the fore part, attended with restlessness, anorexia, and inclination to remain in a horizontal posture. I applied a blister to the nape of the neck, and produced several alvine discharges by the exhibition of a mercurial purgative, but without any good effect, for on the next day the cerebral symptoms were aggravated and alarming: the patient lay in an imperfect stupor with the eyes closed, and pupils greatly dilated, continually rolling his head from side to side, complaining when spoken to, of great cerebral distress, and affected every now and then with convulsive twitchings of his limbs. I had now no doubt as to the nature of the case, and after again freely evacuating the bowels, attempted to bring the system under the specific operation of mercury, but in vain; the disease still advanced, attended with strabismus, a more general and constant convulsive agitation of the limbs, and other symptoms that marked its fatal character. On the seventh day, the patient lay in a deep stupor, his breathing stertorous, his limbs more or less paralytic, and *scæces* and urine passing involuntarily. On the eighth day from the cessation of the fever, he was agitated by general convulsions, and died in the course of the night. I was not permitted to examine the body after death. I regretted the prohibition the less, as the symptoms left no doubt in my mind as to the nature of the disease, that it arose from the effusion of water in the brain; for the adult age of the patient, and the other circumstances of the case, forbid the idea of considering the cerebral affection to have been symptomatic of irritation of the alimentary canal.

The effusion of water into the cellular membrane, or into the abdominal cavity on the subsidence of tedious fevers, is not an uncommon occurrence, and usually disappears on the returning vigour of the system, without much aid from medicine. Effusion into the thoracic cavities under the same circumstances, is not so frequent, and perhaps not so easily

remedied, at least I have seen two cases of this kind prove fatal, when the primary disease did not appear to have affected the pulmonary organs seriously. Fortunately effusion into the cerebral cavity is a still more rare occurrence, for where the effusion proceeds to any extent, it must invariably terminate fatally. I have some recollection of meeting with two or three such cases in authors, but have no means at present to search them up; one of them I think, is recorded by Schenklius. From meditating on this subject, I am inclined to attribute the dullness, langour, and listlessness, which so frequently occur in convalescence from fever, to a slight effusion of serum in the cavities of the brain, arising from a debilitated and relaxed condition of their exhalent vessels, which tonic medicines and the returning energies of the system quickly corrects and dissipates. By noting this accident as a possible termination of fever, we shall be more likely to observe its invasion, and by timely and prompt measures be enabled in some instances at least, to arrest its progress before the unequivocal symptoms of hydrocephalus appear; and the patient from a rational hope of a speedy recovery, is irretrievably placed beyond the succours of art.

Alibert, in his *Treatise on Malignant Intermittents*, relates a case occurring in the St. Louis Hospital, in some respects similar to the affection under consideration. In his case, the patient died from an attack of the soporose state of a malignant intermittent, after having lain sometime in a state of somnolency, tranquil delirium, great weakness, and insensibility. Dissection after death showed, besides great effusion of serum in the pleura, a diseased state of the liver, spleen, &c. an effusion of two ounces of serum between the dura mater and tunica arachnoidea. The author attributes the œdema to the quartan fever, which the patient had laboured under for three months, previously to the attack of the malignant disease of which he died. Many cases of fever might be quoted from authors, where, on examination after death, an

effusion of serum in the ventricles was discovered ; but in these cases, the effusion was the immediate consequence of the febrile erythism, in the same way as hydrothorax sometimes supervenes on inflammation of the pleura, and is altogether different from that condition of the exhalent vessels, of which we have given an example, and to which I wish to call the attention of medical inquirers.

Note by Editors.—It certainly would have been more satisfactory, had Dr. Hobhouse made an autopsic examination of this case ; although we are persuaded from the very characteristic symptoms the case exhibited, that there was effusion of water into the brain, and that it was the cause of death. As it is, however, the case is interesting and instructive : it shows either that the primitive seat of the fever resided in the brain, or that the cerebral effusion was a critical solution of the disease, which proved fatal by its unfortunately occurring in a part where it could not, consistent with life, remain until it was re-absorbed into the system.

A Case of Phlegmasia Dolens, extracted from the Annales de la Medicine Physiologique de Broussais.

MADAME ———, aged 29 years, of fair complexion and good habit of body, was happily delivered of her second child, but eight days after, was attacked with excessive uterine hemorrhage, which was arrested by means of cold applications. Two days after this accident, she experienced a pain in the right side of the pelvis and along the internal part of the corresponding thigh, which was supposed to be the consequence of some uterine derangement. On the third day, the skin of the extremities became red from the groin to the knee, the patient complained of lancinating pains through the part, and the glands of the groin were swelled and painful.

I saw the case on the sixth day from the occurrence of the hemorrhage, when it exhibited the following symptoms :—The right thigh was of twice the volume of the other, insen-

sible on slight pressure, but painful on applying the fingers on the part with much force; its tissue was firm, resisting, and did not pit on pressure; the lymphatic vessels the whole length of the thigh, formed an indurated, irregular cord, with some of the glands as large as filberts; the skin and temperature of the part natural; fever slight; no appetite; tongue dry without being parched, with white fur in the centre, and the edges and point red; *mammæ* flaccid; bowels constipated; no abdominal tenderness; and the urine red and depositing a sediment. Judging of the seat and nature of this affection from the condition of the patient on its invasion, the cause to which it could be plainly attributed, and the part where the symptoms first appeared, I directed the application of twenty leeches to the thigh along the course of the lymphatic cord. The extremity was enveloped in a flannel, wet with a decoction of flax-seed, and which was renewed every two hours; two ounces of *ol. ricin.* was administered in warm weak broth, and a decoction of flax-seed, with the addition of some nitrate of potass, given freely.

The bleeding from the part was abundant, and the cathartic produced alvine discharges in the course of three hours after its exhibition. On the day after, the hardness of the thigh was found to have disappeared, but its volume remained the same. The ptisan and fomentations were continued. Three days I repeated the local bleeding, although the relatives of the patient objected to it on account of the great quantity of blood that had been lost. From this time, the extremity gradually diminished in size, and by the twenty-second day from the first bleeding, the part had returned to its natural size and condition.

INTELLIGENCE.

Report of the Medical Society of Philadelphia, on the subject of Artificial Teeth.

THE Committee to whom were referred the letter and documents of Mr. Plantou, on the subject of artificial teeth, beg leave to submit their report to the consideration of the society.

Loss of teeth disfigures the face, impairs the voice, and from an inability to masticate the food, injures the general system. To remedy these inconveniences, dentists have long been accustomed to substitute those that are artificial; the only difference of opinion which now exists, is in the choice of the materials of which they should be constructed.

The animal matter which has been in ordinary use for this purpose, is of so putrescent a character, that the strongest objections may be urged against its employment. Ivory, the tibia and teeth of oxen, the teeth of the hippopotamus, and even the human teeth, when transplanted, are all disposed to putrefaction. They contract besides a fœtid odour, which communicates disease to the gums and adjoining teeth, and thus imparts to the mouth the most scorbutic appearance. The saliva becomes now impregnated with the unwholesome matter, issuing from the decayed teeth, and diseased gums, which, being carried into the stomach, frequently produces the most unmanageable dyspepsia.

To obviate the ill effects resulting from the use of such materials, Mr. Duchateau, an apothecary of Paris, constructed teeth for his own use, of hard porcelain. He communicated this discovery to the academy of surgery, in the year 1776. These teeth were incorruptible, and were perfectly fitted to perform the office of mastication; but as they did

not retain a durable enamel, experience did not confirm the judgment which had been pronounced in their favour.

The suggestions of Duchateau, however, have since exercised the ingenuity of many distinguished dentists, who, by a terro-metallic combination have been enabled to form artificial teeth, which cannot be distinguished by the most attentive observer, from those that are natural. For these improvements, we are indebted to the joint labours of Dubois, Chemant, and Dubois, Foucou of Paris, Fonzi of Italy, and Mr. Plantou of Philadelphia.

The latter gentleman has submitted to our inspection several beautiful and ingenious specimens of his art, which we have subjected to a series of experiments. These experiments, the reports of the Athenæum of Arts, and of the Academy of Medicine of Paris, together with a number of certificates from respectable citizens of Philadelphia, authorize us to give the following opinion.

1. The artificial teeth of Mr. Plantou are unalterable by heat.

2. Neither alkalies nor acids, (except the fluoric) make the slightest impression upon them.

3. The materials of which they are composed, being indestructible, the injurious effects resulting from those in common use, are thus obviated.

4. They are of so firm a texture, that the rudest efforts of mastication cannot injure them.

5. They can be made of any shade of colour, in order to correspond in appearance with the adjoining natural teeth.

6. They are the least expensive, in consequence of their great durability.

It is due to Mr. Plantou to add, that he has recently invented an ingenious spring, for the purpose of opening the double gang of teeth, (double dentiers) which possesses many advantages over those used by his predecessors.

Should this report be accepted, the committee would res-

spectfully recommend its incorporation with the minutes of the society, and that a copy of it be furnished Mr. Plantou by the corresponding Secretary.

Feb. 16. 1822.

THOMAS HARRIS,
SAMUEL JACKSON,
CHARLES O. MEIGS.

For the benefit and convenience of the public, Mr. Plantou intends to furnish one or two dentists of the principal towns of the United States, with teeth ; which he will sell at a reasonable price. He also offers to make teeth for persons at any distance, if a good wax impression be sent to him ; the teeth may be placed by any other dentist.

Tartarised Antimony, a Remedy for Intermittents.

IN one of the late numbers of Broussais' Journal, Peysson and Leglay of Cambray, recommended the employment of tartarised antimony combined with a small quantity of opium, as preferable to the Peruvian bark in the treatment of intermitting fevers and other periodical affections. They assert that it is more certain and efficacious in its operation, than the Peruvian bark ; less likely to be followed by relapses, providing the medicine be continued only a few days after the entire cessation of the fever, (for its operation is, to cause it gradually to disappear,) and that it may be administered in many cases where the Peruvian bark would be highly improper ; whilst on the other hand, it is attended with no inconveniencies, which do not equally lie against the received method of treating these diseases. In cases complicated with gastric or intestinal inflammation, the use of antimony as well as the Peruvian bark, are contra-indicated ; but under such circumstances, the former would excite nausea and vo-

miting, and thereby show the impropriety of its use, whilst the other affords no evidence of its injuring the patient.

The following is the mode of exhibiting the remedy :—

R Tart antim. gr. j.
Aq. distill. ℥ viij.
Syr. papav. somnif. ℥ j.
Gum Arab. 3 ss.
Aq. menth, 3 ss. M.

Of this mixture, the patient is to take every hour during the apyrexial state ; beginning with a teaspoonful, and augmenting the dose one teaspoonful each time to the hour of repast, when it is to be discontinued and recommenced two hours after. Instead of increasing the dose, M. Peysson rather prefers to shorten the interval, that the patient shall, after a few doses, take of the medicine every half or quarter of an hour.

Reflecting on the *modus operandi* of the remedy, Peysson was induced to make trial of the tartarised antimony in the form of ointment, applied externally. From which trials he concludes that its external use is to be preferred to every other method of treating these diseases.

The following is the recipe for the ointment :

R Tart. antim. gr. xxij.
Aq. distill. q. s. ad solut.
Adep. suil. ℥ j. M.

Of this, a scruple is to be applied by means of friction, to different parts of the body, as, the thorax, abdomen, extremities or spine, four or five times a day, taking care to apply it to different parts each time, least it should produce vesication.

If this method of treating intermittents should be found to deserve the praises bestowed upon it by these gentlemen, we may cease to regret the little care the South Americans take of the plant which furnishes the *grand febrifuge* ; for

thus shorn of its best honour, we may consider the time as not very distant, when the cinchona will sink into the more ordinary class of tonics, which in their turn also, seem every day to become of less and less repute in the treatment of febrile diseases.

Paracentesis.

In a case of Ascites occurring in a French lady, aged 27 years, Dr. Chatard of Baltimore performed the operation of paracentesis *seventy-six* times, in the course of two years and five months. The quantity of water drawn off at these several tapplings, amounted to 871 quarts. The operation had been previously performed three times, by Dr. Mathieu, of Philadelphia, under whose care the patient then was. The discharge varied remarkably at different times; sometimes it was perfectly limpid, at others serous, then mucilagenous, often entirely purulent, and emitting so offensive an odour, that it was almost impossible to remain in the room with her during the operation. Notwithstanding her disease, the patient was enabled to attend to her domestic affairs, and even became pregnant, and was delivered of a child that lived eight days. The disease finally proved fatal. The punctures were made in the linea alba, a quarter of an inch below the umbilicus, except during the three last months of her pregnancy, when the operation was thrice performed on the right side of the abdomen, below the large lobe of the liver.

At the anniversary meeting of the Medical Society of the State of New-York, held at the capitol in the city of Albany, on Tuesday the 5th day of February, 1822, the following gentlemen were elected its officers, viz :

Dr. SAMUEL L. MITCHILL, *President.*
 THOMAS FULLER, *Vice President.*
 CHARLES D. TOWNSEND, *Secretary.*
 T. ROMEYN BECK, *Treasurer.*

CENSORS.

Dr. FELIX PASCALIS,
 JAMES R. MANLEY, } *Southern District.*
 CHA'S. DRAKE,

WILLIAM BAY,
 T. ROMEYN BECK, } *Middle District.*
 PETER WENDELL,

JOHN H. STEEL,
 AB'M. ALLEN, } *Eastern District.*
 JOHN DOWNS,

AMOS G. HULL,
 LAURENS HULL, } *Western District.*
 ERASTUS D. TUTTLE,

HENRY MITCHILL,
 ABRAHAM ALLEN,
 FELIX PASCALIS,
 WESTLEY WILLOUGHBY, } *Committee*
 T. ROMEYN BECK, } *of*
 ERASTUS D. TUTTLE, } *Correspondence.*
 JAMES DOWNS,

At an anniversary meeting of the Medical Society of the County of New-York, held at the hall of the college of Physicians and Surgeons, on Monday, July 1st, 1822, the following gentlemen were elected its officers for the ensuing year. viz :

GILBERT SMITH, M. D. *President.*

JOHN WATTS, JUN. M. D. *Vice-President.*

ANDREW ANDERSON, M. D. *Treasurer.*

DR. PETER C. TAPPAN, *Recording Secretary.*

ALEX. H. STEVENS, M. D. *Corresponding Secretary.*

THOMAS COCK, M. D.

JOHN C. CHEESMAN, M. D.

JOSEPH M. SMITH, M. D.

DR. SAMUEL OSBORN,

ANSEL W. IVES, M. D.

} *Censors.*

JAMES R. MANLEY, M. D. *Delegate to the State Medical Society.*

JOHN B. BECK, M. D.

FELIX PASCALIS, M. D.

JOSEPH M. SMITH, M. D.

JOHN STEARNS, M. D.

JOHN WATTS, JUN. M. D.

} *Lecturers.*

Ergotted Spear-Grass.

The Editors have received a communication on the subject of ergotted spear-grass, together with some specimens of the article. The inquiry whether or not it may be the cause of some of the varied diseases to which horses and neat cattle are subject, is one highly interesting to the grazier and practical agriculturalist, and we hope in some future number to be able to answer the question satisfactorily, as an analysis of the diseased vegetable will go far to assist our investigations.

We shall be much obliged to our correspondent for an additional supply, as the parcel which he was kind enough to transmit, as well as his letter, has been mislaid, which we should very much regret, if they could not upon diligent search be found, or be replaced.

NOTE.—The Editors acknowledge the receipt of a well written communication on the subject of Mind, but they have hesitated as to its publication, on the account of its embracing much reasoning which is not strictly physiological ; perhaps a second perusal will determine them to give it an insertion.

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OR THE

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JULY, 1821.

PLACES.	THERMOMETER.									Hottest day.	Coldest day.	WINDS.							
	Highest Deg.			Lowest Deg.			Mean Temperature.					N.	N.W.	N.E.	E.	S.E.	S.	S.W.	
	VII.	II.	IX.	VII.	II.	IX.	VII.	II.	IX.			days	days	days	days	days	days	days	
Machinac,	70	76	63	53	57	50	61.45	68.12	60.51	Mon. 30.	Tues. 10.	6	1	1	9		1		
Eastport, Me.	75	89	63	57	65	52	59.43	71.74	59.87	Tues. 31.	Wed. 11.	1	3	3	3	1	12		
Plattsburgh,	72	89	81	50	70	63	60.12	75.09	67.25	Tues. 31.	" 4.	3	3	4	1	4	10	4	
St. Peters,	75	92	75	58	65	53	68.12	80.58	68.09	Sun. 29.	" 11.	7	2	1	1	3	4	9	
Portland, Me.	80	94	74	57	69	51	63.93	75.74	62.61	Tues. 31.	Fri. 6.	6		1	3	6	9	6	
Fort Niagara,	70	87	76	55	63	62	63.45	73.33	67.09	Sun. 29.	Thur. 5		12	6	3	1		7	
Portsmouth, N. H.	63	84	80	51	64	53	62.83	71.43	65.51	Tues. 31.	Wed. 4.	1	4		4	7	6	6	
Detroit,	80	92	86	62	66	60	63.93	78.22	72.87	" 31.	" 18.	2	4	6	3	4	11		
Watervliet, N. Y.	71	97	79	54	70	70	65.61	79.67	71.41	" 31.	" 4.	8	4		1		15		
Prairie du Chien,	70	90	79	54	73	62	64.77	80.13	69.32	Sun. 29.	" 13.		13	3		2	3	7	
Boston Harbour,	82	98	76	51	63	58	64.77	78.32	64.48	Tues. 31.	Fri. 6.		1	3	13		2	12	
Fort Armstrong.	72	89	81	62	78	68	67.54	83.18	73.00	Sun. 29.	Sat. 21.								
Council Bluffs,	75	88	79	57	76	65	67.06	79.03	70.32	Tues. 31.	Wed. 4.	6	2	1	3	16	1	1	
Newport, R. I.	76	86	71	63	70	56	69.19	75.06	65.33	" 31.	" 4.		4	2	1	6	4	14	
Pittsburgh Arsenal,	71	87	71	57	70	70	66.00	75.74	68.22	" 31.	" 4.	11	3	1			12	4	
Fort Mifflin, Pa.	86	92	80	61	70	62	74.33	83.35	71.83	" 31.	" 4.		1	9		4		14	
Fort Mc Henry, Md.	78	96	73	60	70	64	71.29	82.06	73.03	" 31.	Thur. 5.	3	3	2	2	8	5	4	
Fort Severn, Ml.	77	90	82	62	66	63	76.22	79.70	72.51	Mon. 30.	" 5.	8	3	3	4	3	5	3	
Fort Washington, Md.	81	83	87	65	65	66	73.43	78.61	76.54	" 30.	" 5.	5	5	1	1	2	9		
Norfolk, Va.	80	83	82	70	71	69	75.64	78.77	76.74	" 30.	Fri. 6.	1	3	2	3	2	6	9	
Fort Johnson, N. C.	81	83	86	75	76	76	79.22	83.03	80.58	Tues. 31.	Thur. 19.	9			1		14	3	
Camp Ripley,	80	93	81	71	84	78	77.29	88.48	81.25	Mon. 2.	Fri. 20		3			24	1	3	
Fort Scott, Geo.	81	93	87	70	73	77	76.82	85.71	79.42	Tues. 31.	Wed. 25.	2	1	3	2	1	7	7	
Fernandina, F.	84	83	83	76	81	77	79.74	84.64	81.00	Wed. 11.	Tues. 24.			1		18	1	11	
Fort St. Marks, F.	81	92	84	75	83	77	79.06	84.87	79.22	Mon. 30.	Wed. 4.		2	1		5		22	
Fort St. Philip, La.	80	89	86	76	80	79	80.58	85.19	81.70	Thur. 12.	Sat. 23.		2			3	1	13	

JULY, 1821.

Coldest day.	WINDS.								Prevailing.	WEATHER.		
	N.	N.W.	N.E.	E.	S.E.	S.	S.W.	W.		Fair.	Clou.	Rain.
	days	days	days	days	days	days	days	days		days.	days.	days.
Tues. 10.	6	1	1	9		1		13	W.	27	3	1
Wed. 11.	1	3	3	3	1	12		8	S.	22	7	2
" 4.	3	3	4	1	4	10	4	2	S.	22	3	6
" 11.	7	2	1	1	3	4	9	4	S. W.	19	7	5
Fri. 6.	6		1	3	6	9	6		S.	25	4	2
Thur. 5		12	6	3	1		7	2	N. W.	19	7	5
Wed. 4.	1	4		4	7	6	6	3	S. E.	25	4	2
" 18.	2	4	6	3	4	11		1	S.	24	4	3
" 4.	8	4		1		15		3	S.	23	5	3
" 18.		13	3		2	3	7	3	N. W.	23	6	2
Fri. 6.		1	3	13		2	12		E.	26	1	4
Sat. 21.												
Wed. 4.	6	2	1	3	16	1	1	1	S. E.	17	14	
" 4.		4	2	1	6	4	14		S. W.	19	6	6
" 4.	11	3	1			12	4		S.	21	4	6
" 4.		1	9		4		14	3	S. W.	14	10	7
Thur. 5.	3	3	2	2	8	5	4	4	S. E.	21	1	9
" 5.	8	3	3	4	3	5	3	2	N.	19	3	9
" 5.	5	5	1	1	2	9		8	S.	23	4	4
Fri. 6.	1	3	2	3	2	6	9	5	S. W.	17	7	7
Thur. 19.	9			1		14	3	4	S.	12	6	13
Fri. 20.		3			24	1	3		S. E.	23	7	1
Wed. 25.	2	1	3	2	1	7	7	8	W.	7		24
Tues. 24.			1		18	1	11		S. E.	8	5	18
Wed. 4.		2	1		5		22	1	S. W.	6	2	23
Sat. 28.		2			3	1	13	12	S. W.	10	7	14

R.		Prevailing.	REMARKS.
n.	Snow.		
rs.	days.		
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		observ. of winds & w	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Fair.	
		Rain.	
		Fair.	
		Rain.	
		Rain.	
		Rain.	
		Rain.	

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AUGUST, 1821.

PLACES.	THERMOMETER.									Hottest day.	Coldest day.	WINDS.								
	Highest Deg.			Lowest Deg.			Mean Temperature.					N.	N.W.	N.E.	E.	S.E.	S.	S.W.	V.	
	VII.	II.	IX.	VII.	II.	IX.	VII.	II.	IX.			days	days	days	days	days	days	days	da	
Machinac,	74	79	70	52	56	54	64.22	70.29	64.83	Tues 14.	Fri. 24	2				13			1	1
Eastport, Me.	72	90	65	52	67	56	59.80	73.61	58.48	Wed. 15.	Tues. 28.	8	3			3	2	6	1	
Plattsburgh,	78	95	76	50	54	60	61.54	78.49	68.32	" 15.	" 28.	4	4	5		2	2	8	4	
St. Peters,	76	92	82	56	66	57	71.09	82.09	72.00	" 6.&7.	Fri. 31.	1	2	7		2	1	2	11	
Portland, Me.	64	93	76	58	67	52	64.87	78.48	61.87	Tues. 14.	Sun. 26.	4				2	8	3	14	
Fort Niagara,	77	88	86	58	70	60	68.41	76.48	70.61	Fri. 17.	Mon. 27	2	6	3		2	1		8	
Portsmouth, N. H.	79	90	80	57	70	66	64.16	74.58	67.83	Wed. 1.	Thur. 23.	1	9			1	5	4	5	
Detroit,	78	94	88	64	74	66	74.09	83.19	77.38	Sat. 11.	Wed. 22.	2	4	2		5		15	1	
Watervliet, N. Y.	71	97	86	55	76	67	65.93	82.80	72.32	Wed. 15.	" 22.	6	6			1	2	10		
Prairie du Chien,	75	91	80	57	75	62	66.36	80.56	71.53	Tues. 14.	Fri. 31.		10			5	2		13	
Boston Harbour,	78	99	79	55	71	61	66.12	80.03	66.61	Wed. 1.	Tues. 28.	1	4	7		6	1	2	9	
Fort Armstrong.	77	94	89	62	76	70	71.29	84.09	75.91	Fri. 3.	Wed. 22.	1		12		3	7	3	1	
Council Bluffs,	70	100	79	57	69	58	71.03	87.19	75.06	Fri. 17.	Fri. 31.	7	2	1		2	14	2	1	
Newport, R. I.	76	88	72	68	72	57	71.93	77.70	68.61	Thur. 16.	Mon. 27.	3	6	1		2	5	1	13	
Pittsburgh Arsenal,	70	93	71	58	70	59	67.32	82.29	70.03	Sun. 5.	Fri. 24	3	3			3		12	10	
Fort Mifflin, Pa.	86	96	80	66	80	64	76.64	85.70	72.19	Thur. 16.	Wed. 29.		12	5			7		6	
Fort Mc Henry, Md.	78	98	84	60	80	70	72.06	87.93	77.35	Wed. 1.	Thur. 23	2	8	1		1	8	1	5	
Fort Severn, Md.	75	94	83	64	78	70	72.12	84.19	76.09	Thur. 16.	" 23.	2	6	5		4	3	8	2	
Fort Washington, Md.	83	90	86	67	77	74	75.51	82.87	80.06	Fri. 3.	Wed. 29.	6	9					6	7	
Norfolk, Va.	82	87	86	73	79	75	78.38	82.93	80.12	Wed. 1.	Thur. 9.		6	6		4	4	1	8	
Fort Johnson, N. C.	84	88	84	70	81	76	78.64	84.64	80.58	Fri. 3.	Fri. 24	16		1				10	1	
Camp Ripley,	82	92	86	70	88	82	77.06	88.22	81.35	Tues. 28.	Fri. 31.		3	1		1	23		2	
Fort Scott, Geo.	80	92	84	68	82	70	76.32	86.96	80.90	Wed. 1.	Sat. 25.	3	2	2		6	4		5	
Fernandina, F.	86	92	89	76	80	78	79.90	85.29	82.25	" 22.	Tues. 14.		3	6			15	1	6	
Fort St. Marks, F.	80	94	83	70	86	74	77.00	87.00	80.00	Thur. 2.	Sat. 25.		5	6			7	1	10	
Fort St. Philip, La.	84	92	86	76	80	76	79.70	85.74	81.90	" 2.	Fri. 17.	2	1	3		4	7	1	12	

AUGUST, 1821.

Hotest day.	Coldest day.	WINDS.								Prevailing.	WEA	
		N.	N.W.	N.E.	E.	S.E.	S.	S.W.	W.		Fair.	Clou.
		days	days	days	days	days	days	days	days		days	days.
ues 14.	Fri. 24	2			13			1	15	W.	22	3
ed. 15.	Tues. 28.	8	3		3	2	6	1	8	N. & W.	25	3
" 15.	" 28.	4	4	5	2	2	8	4	2	S.	20	7
" 6.&7.	Fri. 31.	1	2	7	2	1	2	11	5	S. W.	15	8
ues. 14.	Sun. 26.	4			2	8	3	14		S. W.	24	3
ri. 17.	Mon. 27	2	6	3	2	1		8	9	W.	23	4
ed. 1.	Thur. 23.	1	9		1	5	4	5	6	N. W.	23	5
at. 11.	Wed. 22.	2	4	2	5		15	1	2	S.	20	7
ed. 15.	" 22.	6	6		1	2	10		6	S.	25	4
ues. 14.	Fri. 31.		10			5	2	13	1	S. W.	18	8
ed. 1.	Tues. 28.	1	4	7	6	1	2	9	1	S. W.	28	
ri. 3.	Wed. 22.	1		12	3	7	3	1	4	N. E.	16	10
ri. 17.	Fri. 31.	7	2	1	2	14	2	1	2	S. E.	24	7
hur. 16.	Mon. 27.	3	6	1	2	5	1	13		S. W.	22	4
an. 5.	Fri. 24	3	3		3		12	10		S.	22	7
hur. 16.	Wed. 29.		12	5		7		6	1	N. W.	21	10
ed. 1.	Thur. 23	2	8	1	1	8	1	5	5	N. W. & S. E.	27	
hur. 16.	" 23.	2	6	5	4	3	8	2	1	S.	27	3
ri. 3.	Wed. 29.	6	9				6	7	3	N. W.	29	
ed. 1.	Thur. 9.		6	6	4	4	1	8	2	S. W.	23	2
ri. 3.	Fri. 24	16		1			10	1	3	N.	21	3
ues. 28.	Fri. 31.		3	1	1	23		2	1	S. E.	20	4
ed. 1.	Sat. 25.	3	2	2	6	4		5	9	W.	20	3
" 22.	Tues. 14.		3	6		15	1	6		S. E.	21	3
hur. 2.	Sat. 25.		5	6		7	1	10	2	S. W.	19	5
" 2.	Fri. 17.	2	1	3	4	7	1	12	1	S. W.	19	2

WEATHER.			Prevailing.	REMARKS.
Cloudy. days.	Rain. days.	Snow. days.		
3	6		Fair.	
3	3		Fair.	
7	4		Fair.	
8	8		Fair.	
3	4		Fair.	
4	4		Fair.	
5	3		Fair.	
7	4		Fair.	
4	2		Fair.	
8	5		Fair.	
	3		Fair.	
0	5		Fair.	
7			Fair.	
4	5		Fair.	
7	2		Fair.	
0			Fair.	
	4		Fair.	
3	1		Fair.	
	2		Fair.	
2	6		Fair.	
3	7		Fair.	
4	7		Fair.	
3	8		Fair.	
3	7		Fair.	
5	7		Fair.	
2	10		Fair.	

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END OF VOLUME VII.

SEPTEMBER, 1821.

PLACES.	THERMOMETER.									Hottest day.	Coldest day.	WINDS.						
	Highest Deg.			Lowest Deg.			Mean Temperature.					N.	N.W.	N.E.	E.	S.E.	S.	S.W.
	VII.	II.	IX.	VII.	II.	IX.	VII.	II.	IX.			days	days	days	days	days	days	days
Machinac,	65	69	66	49	52	49	56.40	60.46	57.10	Fri. 7.	Mon. 24	2	1	1	8	2	2	2
Eastport, Me.	60	79	60	49	54	33	52.50	63.70	51.53	Sun. 2.	Fri. 28.	3	7		4	2	9	2
Plattsburgh,	62	79	72	40	44	43	55.10	65.56	61.13	" 2.	Wed. 26.	5	7	2	4		9	1
St. Peters,	62	82	59	38	62	48	50.36	68.40	58.50	Wed. 5.	" 26.	1	6	7	1		5	6
Portland, Me.	67	84	70	45	69	52	56.60	66.63	62.23	Mon. 3	Sat. 29.	7	1	1		5	3	12
Fort Niagara,	67	80	69	47	56	48	60.30	69.00	62.76	Sat. 1.	Wed. 26		2	5		3	2	9
Portsmouth, N. H.	68	78	68	45	58	52	58.90	66.46	61.23	" 1.	Thur. 27	4	6	1	1	1	12	2
Detroit,	80	88	82	52	64	60	65.33	74.43	69.20	Tues. 11.	" 27.	2			4	2	16	3
Watervliet, N. Y.	68	85	74	44	59	49	59.03	73.20	62.00	Sun. 9.	Wed. 26.	4	4		4	1	7	1
Prairie du Chien,	75	85	70	40	62	56	56.76	75.80	58.26	Wed. 19.	Thur. 27	2	11	1		7	5	1
Boston Harbour,	71	85	74	42	64	52	59.00	71.26	60.46	Mon. 3.	" 27.		11	1	3	2	2	7
Fort Armstrong,	71	90	76	55	55	52	62.73	71.83	66.86	Sat. 8.	Tues. 25.	3	8	12		4		2
Council Bluffs,	70	93	68	41	68	48	58.16	73.00	61.33	Wed. 5.	Wed. 26.	6	7	1	2	10		3
Newport, R. I.	66	80	63	52	63	53	64.93	71.26	63.53	Thur. 6.	Thur. 27.	5	6			7	1	10
Pittsburgh Arsenal,	72	91	76	50	62	54	62.20	71.63	64.80	Tues. 11.	Sun. 30.	4	2	3		1	13	7
Fort Mifflin, Pa.	76	86	72	52	62	58	66.90	75.79	65.40	Sun. 9.	Thur. 27.		8	1	1	8		11
Fort Mc Henry, Md.	80	92	80	50	66	60	67.20	78.13	70.13	Mon. 10.	Fri. 28.	1	8		3	10	2	5
Fort Severn, Md.	78	91	82	52	64	54	66.46	75.26	69.53	" 10.	Thur. 27.	5	4	2	6	2	6	3
Fort Washington, Md	80	86	84	58	63	63	67.96	74.06	73.46	" 10.	" 27.	4	4	2			11	6
Norfolk, Va.	82	90	89	62	69	65	74.33	78.06	75.60	Tues. 11	Fri. 28.		8	8		8		3
Fort Johnson, N. C.	80	88	86	66	73	75	77.16	83.20	77.66	" 18.	" 28.	11		1	2	2	12	
Camp Ripley,	80	96	84	60	78	72	74.76	86.96	80.83	Sat. 22.	Sun. 30.	3	5	4		15	1	2
Fort Scott, Geo.	78	90	85	67	81	81	76.50	86.90	81.43	Tues. 25.	Wed. 5.	1	2	2	3	5	3	6
Fernandina, F.	86	89	87	76	80	76	81.50	86.00	83.33	Sat. 15.	Fri. 28.	1	2	12		13	1	1
Fort St. Marks, F.	80	92	84	70	89	82	77.60	87.20	80.43	Wed. 19.	Wed. 5.		5	13	1	8	1	2
Fort St. Philip, La.	81	89	86	74	81	77	79.76	85.16	81.73	Fri. 21.	" 5.	1	5	6	7	6	2	1

SEPTEMBER, 1821.

Coldest day.	WINDS.								Prevailing	WEATHER.			
	N.	N.W.	N.E.	E.	S.E.	S.	S.W.	W.		Fair	Clou.	Rain.	Snow.
	days	days	days	days	days	days	days	days		days	days.	days.	days.
Mon. 24	2	1	1	8	2	2	2	12	W.	19	8	3	
Fri. 28.	3	7		4	2	9	2	3	S.	17	10	3	
Wed. 26.	5	7	2	4		9	1	2	S.	11	8	11	
" 26.	1	6	7	1		5	6	4	N. F.	15	8	7	
Sat. 29.	7	1	1		5	3	12	1	S. W.	22	4	4	
Wed. 26		2	5		3	2	9	9	s. w. & w.	10	15	5	
Thur. 27	4	6	1	1	1	12	2	3	S.	23	3	4	
" 27	2			4	2	16	3	3	S.	23	6	1	
Wed. 26.	4	4		4	1	7	1	9	W.	17	8	5	
Thur 27	2	11	1		7	5	1	3	N. W.	16	8	6	
" 27		11	1	3	2	2	7	4	N. W.	21	2	7	
Tues. 25.	3	8	12		4		2	1	N. E.	14	10	6	
Wed. 26.	6	7	1	2	10		3	1	S. E.	20	8	2	
Thur. 27.	5	6			7	1	10	1	S. W.	19	5	6	
Sun. 30.	4	2	3		1	13	7		S.	18	6	6	
Thur. 27		8	1	1	8		11	1	S. W.	18	7	5	
Fri. 28.	1	8		3	10	2	5	1	S. E.	17	1	12	
Thur. 27.	5	4	2	6	2	6	3	2	E. & S.	18	5	7	
" 27.	4	4	2			11	6	3	S.	21	2	7	
Fri. 28.		8	8		8		3	3		17	5	8	
" 28.	11		1	2	2	12		2	S.	16	7	7	
Sun. 30.	3	5	4		15	1	2		S. E.	20	7	3	
Wed. 5.	1	2	2	3	5	3	6	8	W.	21	1	8	
Fri. 28.	1	2	12		13	1	1		S. E.	17	7	6	
Wed. 5.		5	13	1	8	1	2		N. E.	19		11	
" 5.	1	5	6	7	6	2	1	2	E.	26	2	2	

Prevailing	REMARKS.
Fair.	
Fair.	27th frost.
Fair.	20th frost.
Fair.	
Clou.	
Fair.	
Fair.	
Fair.	
Fair.	
Fair.	
Fair.	[to midnight
Fair.	3d violent gale from 7 P.M.
Fair.	
Fair.	
Fair.	
Fair.	[11 A. M. to 1 P. M.
Fair.	3d violent hurricane from
Fair.	
Fair.	
Fair.	
Fair.	
Fair.	